XM-7547

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model

SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION
75 watts per channel minimum continuous average power into 4 ohms, both channels driven from 20 Hz to 20 kHz with no more than 0.04%* total harmonic distortion per Car Audio Ad Hoc Committee standards.

Other Specifications

Circuit system	Pure Direct Drive SEPP Pulse power supply (Three Transformers)	
Inputs	RCA pin jacks	
Outputs	Speaker terminals	
Speaker impedance	0.5** – 8 Ω (stereo) 1** – 8 Ω (when used as a bridging amplifier)	
Maximum outputs		
	HI-VOLTAGE (A/B/C/D ch.)	HI-CURRENT (C/D ch.)
	180 W (at 4 Ω)	90 W (at 4 Ω)
	300 W (at 2 Ω)	180 W (at 2 Ω)
	600 W (at 4 Ω BTL)	360 W (at 4 Ω BTL)
Rated outputs (supply voltage at 14.4 V*, 20 Hz – 20 kHz)		
	HI-VOLTAGE (A/B/C/D ch.)	HI-CURRENT (C/D ch.)
	75 W (at 4 Ω, 0.04 %)	37.5 W (at 4 Ω, 0.04 %)
	150 W (at 2 Ω, 0.1 %)	75 W (at 2 Ω, 0.1 %)
	—	150 W (at 1 Ω, 0.3 %)
	—	180 W (at 0.5 Ω , 0.3 %)
	300 W (at 4 Ω BTL, 0.1 %)	150 W (at 4 Ω BTL, 0.1 %)
	—	300 W (at 2 Ω BTL, 0.3 %)
	—	360 W (at 1 Ω BTL, 0.3 %)
Frequency response	5 Hz – 100 kHz ($^{+0}_{-3}$ dB)	
Harmonic distortion	0.005 % or less (at 1 kHz, 4 Ω*)	
Input level adjustment range	0.2 – 4.0 V	
High-pass filter (x 1/x 10)	50 – 400 Hz/500 – 4 kHz, –12 dB/oct	
Low-pass filter (x 1/x 10)	50 – 400 Hz/500 – 4 kHz, –12 dB/oct	
Low boost	0 – 10 dB (40 Hz)	
Power requirements	12 V DC car battery (negative ground)	
Power supply voltage	10.5 – 16 V	
Current drain	at rated output: 45 A (4Ω HI-VOLTAGE mode) at rated output:100 A (2 Ω HI-VOLTAGE mode) Remote input: 1.5 mA	
Dimensions	Approx. 532 × 83.5 × 260 (303 with cover) mm (w/h/d) (21 × 3 3/8 × 10 1/4 in.) not incl. projecting parts and controls	
Mass	Approx. 8 kg (17 lb. 10 oz.) not incl. accessories	
Supplied accessories	Mounting screws (4) Terminal cover (1) Hexagonal wrench 3mm (1/8 in.) (1)	

* NFB ON
** HI-CURRENT (C/D channels) only

Design and specifications are subject to change without notice.

STEREO POWER AMPLIFER

MICROFILM

SONY®

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- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

SECTION 1
SERVICE NOTE

Clearing the Protector During Repairs

- OVER CURRENT : Detects overcurrent during output.
- OFF SET : Detects DC offset at the speaker terminal.

1. Clearing the OVER CURRENT protector

① When the position of the MODE switch (S801/power board) is set to HI-VOLTAGE :
Cut the jumper wire JW535 of the amplifier board.

② When the position of the MODE switch (S801/power board) is set to HI-CURRENT :
Cut the jumper wire JW690 of the amplifier board.

2. Clearing the OFF SET protector

- Cut the jumper wire JW502 of the amplifier board.

3. TEST TONE Function

① Press the TEST TONE button (S851/amplifier board) with the power ON. The amplifier is normal if sound is produced from the speaker.

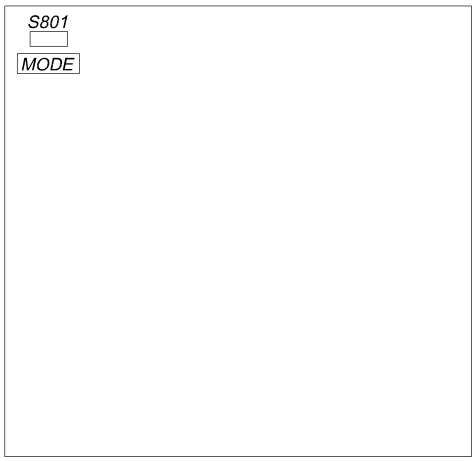
② If no sound

: Problem causer by incorrect connecttion of the power supply system or sperker system.

: The signals input by the RCA cable before the amplifier system are abnormal.

Adjustment Location:

- POWER BOARD - (Component side)



- AMPLIFIER BOARD - (Component side)

SECTION 2
GENERAL

This section is extracted from instruction manual.

Connections

Precautions

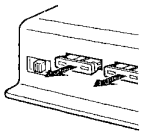
- This unit is designed for negative ground 12 V DC operation only.
- Use speakers with suitable impedance.
  — HI-CURRENT mode: 0.5 to 2 Ω.
  — HI-VOLTAGE mode: 2 to 8 Ω.
- Do not connect any active speakers (with built-in amplifiers) to the speaker terminals of the unit. Doing so may damage the active speakers.
- Avoid installing the unit where:
  — it would be subject to high temperatures such as from direct sunlight or hot air from the heater
  — it would be exposed to rain or moisture
  — it would be subject to dust or dirt.
- If your car is parked in direct sunlight and there is a considerable rise in temperature inside the car, allow the unit to cool down before use.
- Be sure to install the unit horizontally so that the air duct of the cooling fan or its fin will not be covered with carpet etc.
- The cooling fan operates when the temperature inside the unit rises to a certain level. It is not a malfunction if the cooling fan does not operate when you turn on the power.
- If this unit is placed too close to the car radio, interference may occur. In this case, relocate the amplifier away from the car radio.
- If no power is being supplied to the cassette player or tuner, check the connections.
- This power amplifier employs a protection circuit* to protect the transistors and speakers if the amplifier malfunctions. Do not attempt to test the protection circuits by covering the heat sink or connecting improper loads.
- Do not use the unit on a weak battery as its optimum performance depends on a good power supply.
- For safety reasons, keep your car audio volume moderate so that you can still hear sounds outside your car.

Fuse Replacement

If the fuse blows, check the power connection and replace the fuse. If the fuse blows again after replacement, there may be an internal malfunction. In such a case, consult your nearest Sony dealer.

Warning

- When replacing the fuse, be sure to use one matching the amperage stated above the fuse holder. Never use a fuse with an amperage rating exceeding the one supplied with the unit as this could damage the unit.
- If all four fuses are not used, the performance is limited, and the power may not be activated.



** Protection circuit*
This amplifier is provided with a protection circuit that operates in the following cases:
— when the unit is overheated
— when a DC current is generated
— when the speaker terminals are short circuited.
The color of the POWER/PROTECTOR indicator will change from green to amber, and the unit will shut down.
If this happens, turn off the connected equipment, take out the cassette tape or disc, and determine the cause of the malfunction. If the amplifier has overheated, wait until the unit cools down before use.

If you have any questions or problems concerning your unit that are not covered in this manual, please consult your nearest Sony dealer.

Connexions

Précautions

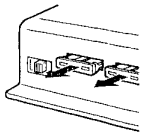
- Cet appareil est conçu pour fonctionner uniquement sur courant continu de 12 volts avec masse négative.
- Utilisez des haut-parleurs d'une impédance appropriée.
  — Mode HI-CURRENT : 0,5 à 2 Ω.
  — Mode HI-VOLTAGE : 2 à 8 Ω.
- Ne raccordez pas de haut-parleurs actifs (avec amplificateur intégré) aux bornes de haut-parleurs de cet appareil; ils pourraient être endommagés.
- N'exposez pas l'appareil:
  — à des températures élevées, comme en plein soleil ou près de la sortie d'air chaud du chauffage;
  — à l'humidité ou à la pluie;
  — à la poussière ou à la saleté.
- Si votre voiture était garée en plein soleil et que la température a considérablement augmenté à l'intérieur, laissez refroidir l'appareil avant de l'utiliser.
- Veillez à installer l'appareil horizontalement de façon à ce que le conduit d'air du ventilateur de refroidissement ou ses ailettes ne soit par recouvert par le tapis de sol, etc.
- Le ventilateur fonctionne lorsque la température interne de l'appareil atteint un certain niveau. Ce n'est pas anormal que le ventilateur ne fonctionne pas à la mise sous tension.
- Si cet appareil est placé trop près de l'autoradio, des interférences risquent de se produire. Eloignez autant que possible l'amplificateur de l'autoradio.
- Si le lecteur de cassette ou le tuner ne sont pas alimentés, vérifiez tout d'abord les connexions.
- Cet amplificateur est équipé d'un circuit* destiné à protéger les transistors et les haut-parleurs en cas de défaillance. N'essayez pas de tester l'efficacité de ce circuit en recouvrant les dissipateurs thermiques ou en effectuant des connexions inadéquates.
- N'utilisez pas l'appareil sur une batterie faible, car sa performance maximale dépend d'une bonne alimentation en électricité.
- Pour des raisons de sécurité, écoutez l'autoradio à un volume modéré afin d'entendre les bruits extérieurs.

Remplacement du fusible

Si le fusible saute, vérifiez les connexions du fil d'alimentation et remplacez le fusible. S'il saute de nouveau, un mauvais circuit interne peut en être la cause. Dans ce cas, consultez votre concessionnaire Sony.

Avertissement

- En cas de remplacement du fusible, veillez à utiliser un fusible dont l'intensité correspond à celle inscrite sur le porte-fusible. N'utilisez jamais de fusible dont l'intensité dépasse celle du fusible fourni avec l'appareil, car vous risqueriez d'endommager l'appareil.
- Si les quatre fusibles ne sont pas utilisés, les performances s'en trouvent limitées et il se peut que le système ne puisse être mis sous tension.



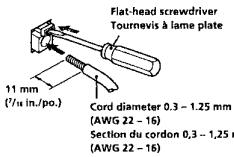
** Circuit de protection*
Cet amplificateur est équipé d'un circuit de protection qui entre en service dans les cas suivants:
— Surchauffe de l'appareil
— Production d'un courant continu
— Court-circuit aux bornes des haut-parleurs.
La couleur du témoin POWER/PROTECTOR passe du vert à l'ambre et l'appareil s'éteint.
Si le cas se présente, coupez l'alimentation de l'appareil raccordé et éjectez la cassette le disque compact avant d'examiner la cause de la défaillance. Si l'amplificateur est trop chaud, attendez qu'il refroidisse.

Pour toute question ou problème qui ne serait pas traité dans ce manuel, consultez votre concessionnaire Sony.

Caution

- Before making any connections, disconnect the ground terminal of the car battery to avoid short circuits.
- Be sure to use speakers with an adequate power rating. If you use small capacity speakers, they may be damaged.
- Do not connect the ⊖ terminal of the speaker system to the car chassis, and do not connect the ⊖ terminal of the right speaker with that of the left speaker.
- Install the input and output cords away from the power supply lead as running them close together can generate some interference noise.
- This unit is a high powered amplifier. Therefore, it may not perform to its full potential if used with the speaker cords supplied with the car.
- If your car is equipped with a computer system for navigation or some other purpose, do not remove the ground wire from the car battery. If you disconnect the wire, the computer memory may be erased. To avoid short circuits when making connections, disconnect the +12 V power supply lead until all the other leads have been connected.

Make the terminal connections as illustrated below.



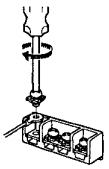
Note
Tighten the screws firmly, but be careful not to apply too much force as doing so may damage the screws.*

** The torque value should be less than 1 N•m.*

Attention

- Avant d'effectuer les connexions, débranchez le fil de masse de la borne de la batterie pour éviter un court-circuit.
- Utilisez des haut-parleurs d'une capacité adéquate. Si vous utilisez des haut-parleurs de faible capacité, ils risquent d'être endommagés.
- Ne raccordez pas la borne ⊖ des haut-parleurs à la carrosserie de la voiture ni la borne ⊖ du haut-parleur droit à celle du haut-parleur gauche.
- Eloignez les cordons d'entrée et de sortie du fil d'alimentation électrique pour éviter que des interférences ne se produisent.
- Cet appareil est un amplificateur de haute puissance et il peut ne pas atteindre sa puissance maximale si les cordons de haut-parleurs originaux de la voiture lui sont raccordés.
- Si votre voiture est équipée d'un ordinateur de bord pour la navigation ou à toute autre fin, ne débranchez pas le fil de masse de la batterie de la voiture. Si vous débranchez ce fil, toute la mémoire de l'ordinateur sera effacée. Pour éviter un court-circuit lorsque vous effectuez les branchements, branchez le fil d'alimentation de +12 V uniquement après avoir branché tous les autres fils.

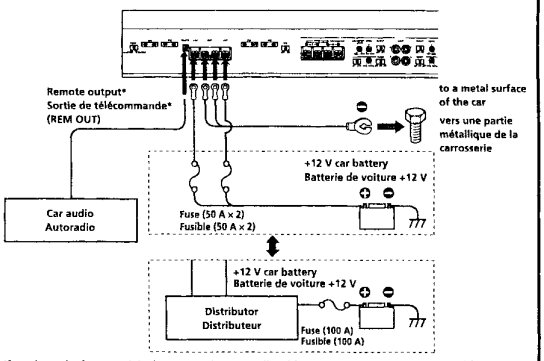
Effectuez les connexions de la manière indiquée ci-dessous.



Remarque
Ne serrez pas trop fort la vis car vous pourriez l'endommager.*

** Le couple de serrage devrait être inférieur à 1 N•m.*

Power Connection Leads
Câbles d'alimentation



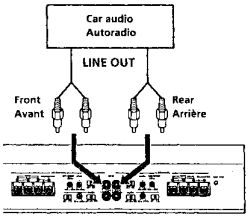
** If you have the factory original or some other car audio without a remote out-put on the amplifier, connect the remote input terminal (REMOTE) to the accessory power supply.*
** Si vous disposez du modèle d'origine ou d'un autre autoradio dont l'amplificateur ne comporte pas de sortie de télécommande, raccordez la borne d'entrée de télécommande (REMOTE) à la prise d'alimentation accessoires.*

Notes on the power supply
- *Connect the +12 V power supply lead only after all the other leads have been connected.*
- ***Be sure to connect the ground lead of the unit securely to a metal point of the car. A loose connection may cause a malfunction of the amplifier.***
- *Be sure to connect the remote control lead of the car audio to the remote terminal.*
- *When using a car audio without a remote output on the amplifier, connect the remote input terminal (REMOTE) to the accessory power supply.*
- *Use the power supply lead with a fuse attached (100 A).*
- *Place the fuse in the power supply lead as close as possible to the car battery.*
- *Make sure that the leads to be connected to the +12 V and GND terminals of this unit are larger than 6-Gauge (AWG-6) or have a sectional area of more than 13 mm².*
- *When using the optional RC-46 power amplifier connecting cord, consult that manual for proper use.*

Remarques sur l'alimentation électrique
- *Raccordez le câble d'alimentation +12 V uniquement après avoir réalisé toutes les autres connexions.*
- ***Raccordez correctement le fil de masse à une partie métallique de la voiture. Une connexion lâche peut provoquer un dysfonctionnement de l'amplificateur.***
- *Veillez à raccorder le fil de télécommande de l'autoradio à la borne de télécommande.*
- *Si vous utilisez un autoradio dont l'amplificateur ne comporte pas de sortie de télécommande, raccordez la borne d'entrée de la télécommande (REMOTE) à la prise d'alimentation accessoires.*
- *Utilisez un câble d'alimentation muni d'un fusible (100 A).*
- *Fixez le câble d'alimentation le plus près possible de la batterie de voiture.*
- *Vous devez raccorder des câbles de calibre supérieurs à 6-Jauges (AWG-6) ou d'une section supérieure à 13 mm² aux bornes +12V et GND.*
- *Lorsque vous utilisez le cordon de raccordement pour amplificateur RC-46 en option, consultez le manuel pour une utilisation correcte.*

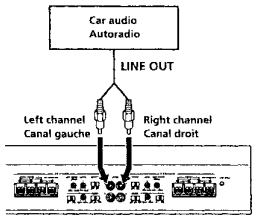
Input Connections

Line Input Connection (with Speaker Connection 1, 2 or 4) A



Connexions d'entrée

Line Input Connection (with Speaker Connection 3) B
Connexion d'entrée de ligne (avec connexion de haut-parleur 3)



Note
Make sure that the line output from the car audio is connected to the jack marked "A (MONO)/C (MONO)" on the unit.

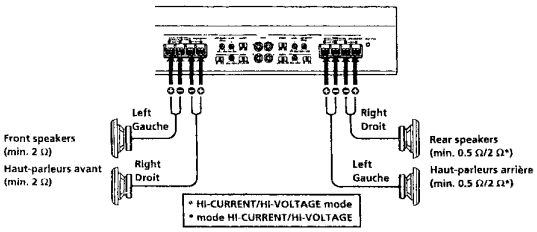
Remarque
Vérifiez que la sortie de ligne de l'autoradio est raccordée à la prise portant l'indication "A (MONO)/C (MONO)" sur l'appareil.

Speaker Connections

4-Speaker System (with Input Connection A) 1
Système à 4 haut-parleurs (avec connexion d'entrée A)

For details on the settings of switches and controls, refer to "Location and Function of Controls."

Pour plus de détails sur les réglages des commutateurs et commandes, reportez-vous à "Emplacement et fonction des commandes".

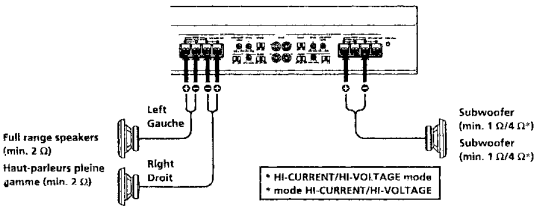


Raccordement de haut-parleurs

3-Speaker System (with Input Connection A) 2
Système à 3 haut-parleurs (avec connexion d'entrée A)

For details on the settings of switches and controls, refer to "Location and Function of Controls."

Pour plus de détails sur les réglages des commutateurs et commandes, reportez-vous à "Emplacement et fonction des commandes".



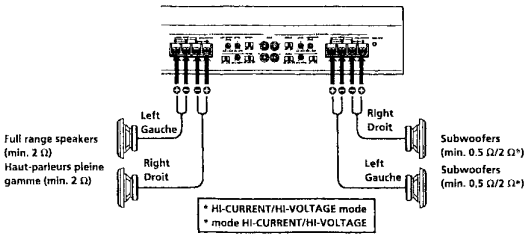
Notes
- *In this system, the volume of the subwoofer will be controlled by the car audio fader control.*
- *In this system, the output signals to the subwoofer are a combination of both the C and D INPUT jacks.*

Remarques
- *Dans ce système, le volume du subwoofer est contrôlé par le fader de l'autoradio.*
- *Sur cet appareil, les signaux transmis vers le subwoofer sont constitués des signaux des prises C et D INPUT.*

2-Way System (with Input Connection A) 3
Système à 2 voies (avec connexion d'entrée A)

For details on the settings of switches and controls, refer to "Location and Function of Controls."

Pour plus de détails sur les réglages des commutateurs et commandes, reportez-vous à "Emplacement et fonction des commandes".



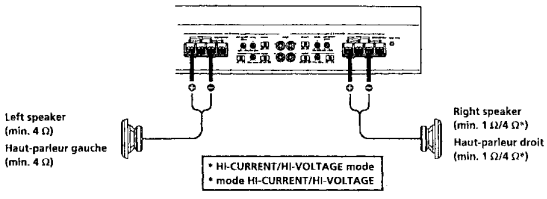
Note
In this system, the volume of the subwoofers will be controlled by the car audio fader control.

Remarque
Dans ce système, le volume des subwoofers est contrôlé par le fader de l'autoradio.

2-Speaker System (with Input Connection B) 4
Système à 2 haut-parleurs (avec connexion d'entrée B)

For details on the settings of switches and controls, refer to "Location and Function of Controls."

Pour plus de détails sur les réglages des commutateurs et commandes, reportez-vous à "Emplacement et fonction des commandes".



Features

- Maximum power output of 180 watts per channel (at 4 Ω).
- This unit can be used as a bridging amplifier with a maximum output of 600 watts.
- Built-in the variable filter corresponds to a wide range, from 50Hz to 400Hz/500Hz to 4kHz. (×1/×10 switch)
- Built-in variable LPF (Low-pass filter), HPF (High-pass filter) and low boost circuit.
- Possible to switch between HI-CURRENT mode (0.5 - 1 Ω) and HI-VOLTAGE mode (2 - 4 Ω) for C/D channels. A/B channels are fixed to HI-VOLTAGE mode.
- The DIRECT switch can be used to bypass the low-pass filter, high-pass filter for more enjoyable high quality sound.
- Negative Feed Back (ON/OFF) switchable.
- Independent voltage amplifier power supply.
- Protection circuit and indicator are provided.
- Pulse power supply* for stable, regulated output power.

* ***Pulse power supply***
This unit has a built-in power regulator which converts the power supplied by the DC 12 V car battery into high speed pulses using a semiconductor switch. These pulses are stepped up by the built-in pulse transformer and separated into both positive and negative power supplies before being converted into direct current again. This is to regulate fluctuating voltage from the car battery. This light weight power supply system provides a highly efficient power supply with a low impedance output.

Caractéristiques

- Puissance de sortie maximale de 180 watts par canal (à 4 Ω).
- Cet appareil peut être utilisé comme amplificateur de pontage d'une sortie maximale de 600 watts.
- Le filtre variable intégré correspond à une large plage allant de 50Hz à 400Hz/500Hz à 4kHz (commutateur ×1/×10).
- Filtre passe-bas (LPF), filtre passe-haut (HPF) variables et circuit d'amplification des graves intégrés.
- Possibilité de commutation des modes HI-CURRENT (0,5 - 1 Ω) et HI-VOLTAGE (2 - 4 Ω) pour les canaux C/D. Les canaux A/B sont limités à la mode HI-VOLTAGE.
- Le commutateur DIRECT peut être utilisé pour contourner le filtre passe-bas, le filtre passe-haut, et pour le circuit d'égalisation, afin d'optimiser la qualité sonore.
- Rétro-action négative (ON/OFF) commutable.
- Alimentation indépendante de l'amplificateur de tension.
- Circuit de protection et indicateur fournis.
- Alimentation électrique par impulsions* pour une puissance de sortie stable, régulée.

* ***Alimentation électrique par impulsions***
Cet appareil est équipé d'un régulateur de puissance intégré qui convertit la puissance fournie par une batterie de voiture de 12 V CC en impulsions ultra-rapides au moyen d'un commutateur à semi-conducteur. Ces impulsions sont amplifiées par le transformateur d'impulsions intégré et séparées en alimentation positive et négative avant d'être reconverties en courant continu. Ce processus permet de compenser les fluctuations de tension provenant de la batterie de la voiture. Ce système d'alimentation de faible poids assure une alimentation électrique très efficace pour une sortie d'impédance faible.

Location and Function of Controls

[1] MODE (C/D CHANNEL) indicator
Indicates HI-CURRENT mode or HI-VOLTAGE mode.

[2] POWER/PROTECTOR indicator
- OVER CURRENT lights up in green during normal operation. The color will change from green to amber when receiving a powerful signal.
- OFFSET lights up green during normal operation. The color will change from green to amber when the voltage going out to the Speaker terminal or the Pin Jack is too high.
- THERMAL lights up in green during normal operation. The color will change from green to amber when the temperature rises to an unsafe level. The color will return to green when the temperature returns to normal.

[3] MODE (C/D CHANNEL) (HI-CURRENT/HI-VOLTAGE) switch
- In HI-CURRENT mode the speaker impedance is 0.5 to 1 Ω. This mode sends a signal via parallel circuits for a powerful sound.
- In HI-VOLTAGE mode the speaker impedance is 2 to 4 Ω. In this mode you can enjoy clear sound with the dynamic range.

[4] NFB switch
When the NFB (Negative Feed Back) switch is set to ON, the NFB circuits are effective at reducing the distortion produced by the amplifier.
Tip
The NFB circuits are effective at reducing the static characteristic distortion produced by the amplifier, but are susceptible to the affects of sound muddiness from the reverse electromotive force produced by the speakers.

[5] DIRECT switch
When the DIRECT switch is set to ON, the signal will not go through the low-pass filter, high-pass filter, or low boost circuit.

[6] LEVEL adjustment control
The input level can be adjusted with this control when using source equipment made by other manufacturers. Turn it to MAX when the output level of the car audio seems low.

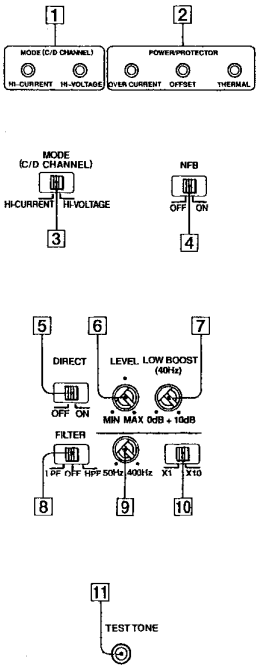
[7] LOW BOOST level control (See Fig. 1)
Turn this control to boost the frequencies around 40 Hz to a maximum of 10 dB.

[8] FILTER select switch
When the switch is in the LPF position, the filter is set to low-pass. When in the HPF position, the filter is set to high-pass. When the DIRECT switch is set to ON, these filters do not work.

[9] Cut-off frequency adjustment control (See Fig. 2)
Sets the cut-off frequency (50 - 400 Hz) for the low-pass or high-pass filters.

[10] ×1/×10 switch (See Fig. 2)
When the ×1/×10 switch is set to ×10 , the established cut-off frequency ([9]) will be 10 times as large as the ×1 setting.

[11] TEST TONE button
To check the system's status, activate the built in transmitter then press the TEST TONE button. If the tone is heard, the unit is functioning normally.



Emplacement et fonction des commandes

[1] Indicateur MODE (C/D CHANNEL)
L'indicateur signale le mode activé : HI-CURRENT ou HI-VOLTAGE.

[2] Indicateur POWER/PROTECTOR
- OVER CURRENT s'allume en vert en cours de fonctionnement normal. La couleur passe du vert à l'ambre lors de la réception d'un signal puissant.
- OFFSET s'allume en vert en cours de fonctionnement normal. La couleur passe du vert à l'ambre lorsque la tension transmise via la borne de haut-parleurs ou la prise à broche est trop élevée.
- THERMAL s'allume en vert en cours de fonctionnement normal. La couleur passe du vert à l'ambre lorsque la température dépasse le niveau de sécurité. La couleur repasse au vert dès que la température est revenue à un niveau normal.

[3] Commutateur de MODE (C/D CHANNEL) (HI-CURRENT/HI-VOLTAGE)
- En mode HI-CURRENT, l'impédance de haut-parleur est de 0,5 à 1 Ω. Ce mode transmet un signal via des circuits parallèles pour créer un son de forte amplitude.
- En mode HI-VOLTAGE, l'impédance de haut-parleur est de 2 à 4 Ω. Ce mode vous permet d'obtenir un son clair dans la plage dynamique.

[4] Commutateur NFB
Lorsque le commutateur NFB (rétroaction négative) est réglé sur ON, les circuits NFB réduisent efficacement les distorsions produites par l'amplificateur.
Conseil
Les circuits NFB réduisent efficacement les distorsions statiques produites par l'amplificateur, mais sont sensibles aux effets d'altération du son causés par la force électromotrice inverse produite par les haut-parleurs.

[5] Commutateur DIRECT
Lorsque le commutateur DIRECT est réglé sur ON, le signal ne passe pas par le filtre passe-bas, le filtre passe-haut et le circuit d'égalisation.

[6] Commande de réglage LEVEL
Le niveau d'entrée peut se régler avec cette commande lors de l'utilisation d'équipements source d'autres fabricants. Mettez-le sur MAX lorsque le niveau de sortie de l'installation audio paraît faible.

[7] Commande de niveau LOW BOOST (Voir Fig. 1)
Tournez cette commande pour amplifier les fréquences autour de 40 Hz à un maximum de 10 dB. Lorsque le commutateur DIRECT est activé, ce circuit n'est pas activé.

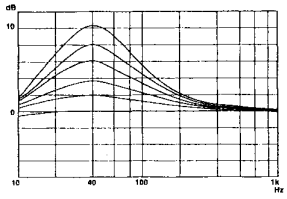
[8] Sélecteur FILTER
Lorsque le commutateur est en position LPF, le filtre est mis sur passe-bas. Lorsqu'il est en position HPF, le filtre est mis sur passe-haut. Lorsque le commutateur DIRECT est réglé sur ON, ces filtres sont inopérants.

[9] Commandes de réglage de la fréquence de coupure (Voir Fig. 2)
Règle la fréquence de coupure (50 – 400 Hz) des filtres passe-bas ou passe-haut.

[10] Commutateur × 1/× 10 (Voir Fig. 2)
Lorsque le commutateur × 1/× 10 est réglé sur × 10 , la fréquence de coupure réglée ([9]) est dix fois supérieure au réglage × 1.

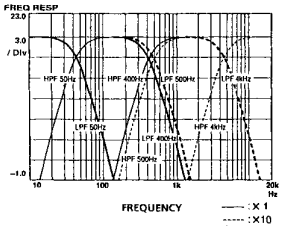
[11] Touche TEST TONE
Pour contrôler le statut du système, activez le transmetteur intégré et appuyez ensuite sur la touche TEST TONE. Si vous entendez une tonalité, c'est que l'appareil fonctionne normalement.

LOW BOOST



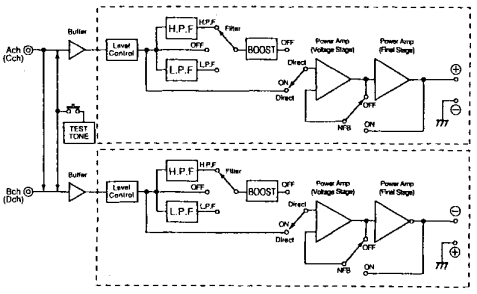
— Fig. 1 —

Cut-off frequency/Fréquence de coupure



— Fig. 2 —

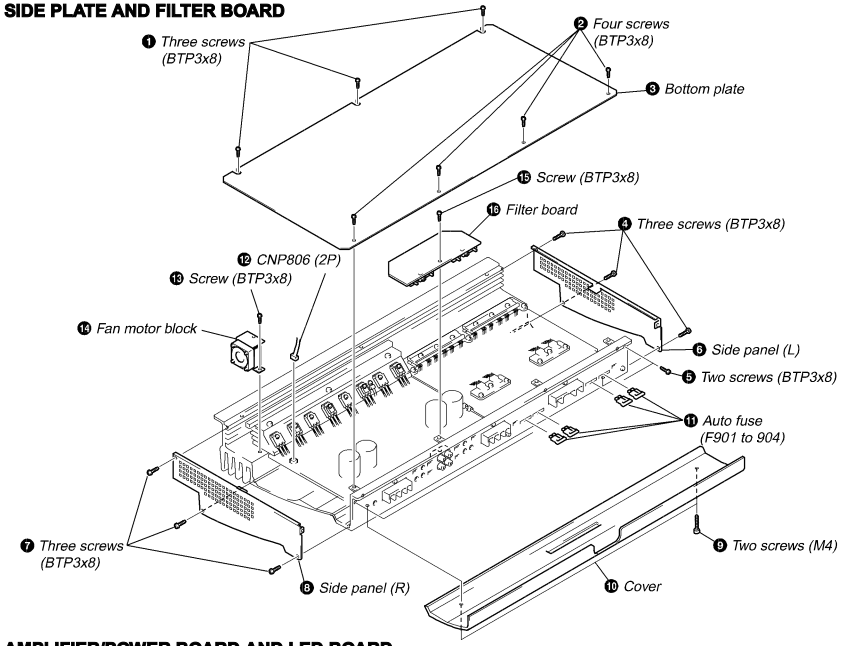
Circuit Diagram / Schéma du circuit



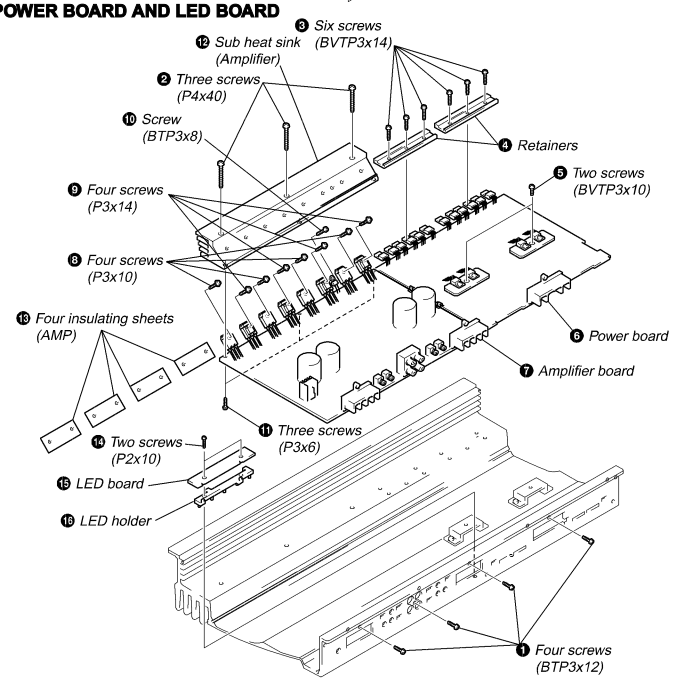
SECTION 3
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

3-1. SIDE PLATE AND FILTER BOARD



3-2. AMPLIFIER/POWER BOARD AND LED BOARD



SECTION 4
ELECTRICAL ADJUSTMENT

IDLING CURRENT ADJUSTMENT

• Perform adjustments in the HI-VOLTAGE mode.

① Adjustment point
Semi-fixed resistors VR101, VR201, VR301, VR401 of amplifier board.

② Precautions on adjustments
1. Set the RCA input terminal to open.
2. Apply a voltage of 14.4V between the +12V terminal, REMOTE terminal, and GND terminal.
3. Rotate the above semi-fixed resistors completely in the counterclockwise direction while observing the component side.
4. Check that the voltage at the adjustment point becomes 0 mV in step 2.
5. Fine adjustments may be required according to the characteristics of the MOS-FET used.

• When adjusting the idling current
Rotating the semi-fixed resistor in the clockwise direction:
In creases the idling current
Rotating the semi-fixed resistor in the counterclockwise direction:
Decreases the idling current

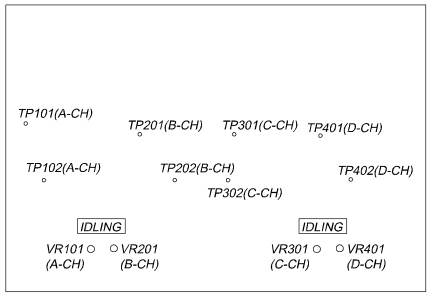
*Take note that rotating excessively in the clockwise direction will increase the idling current suddenly.

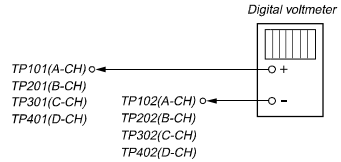
③ Approximate adjustment values
Adjust as follows so that the following voltages become 0.4 to 0.5 mV.

A channel :
Voltage between TP101 and TP102: Use VR101 of the amplifier board
B channel :
Voltage between TP201 and TP202: Use VR201 of the amplifier board
C channel :
Voltage between TP301 and TP302: Use VR301 of the amplifier board
D channel :
Voltage between TP401 and TP402: Use VR401 of the amplifier board

Adjustment Location

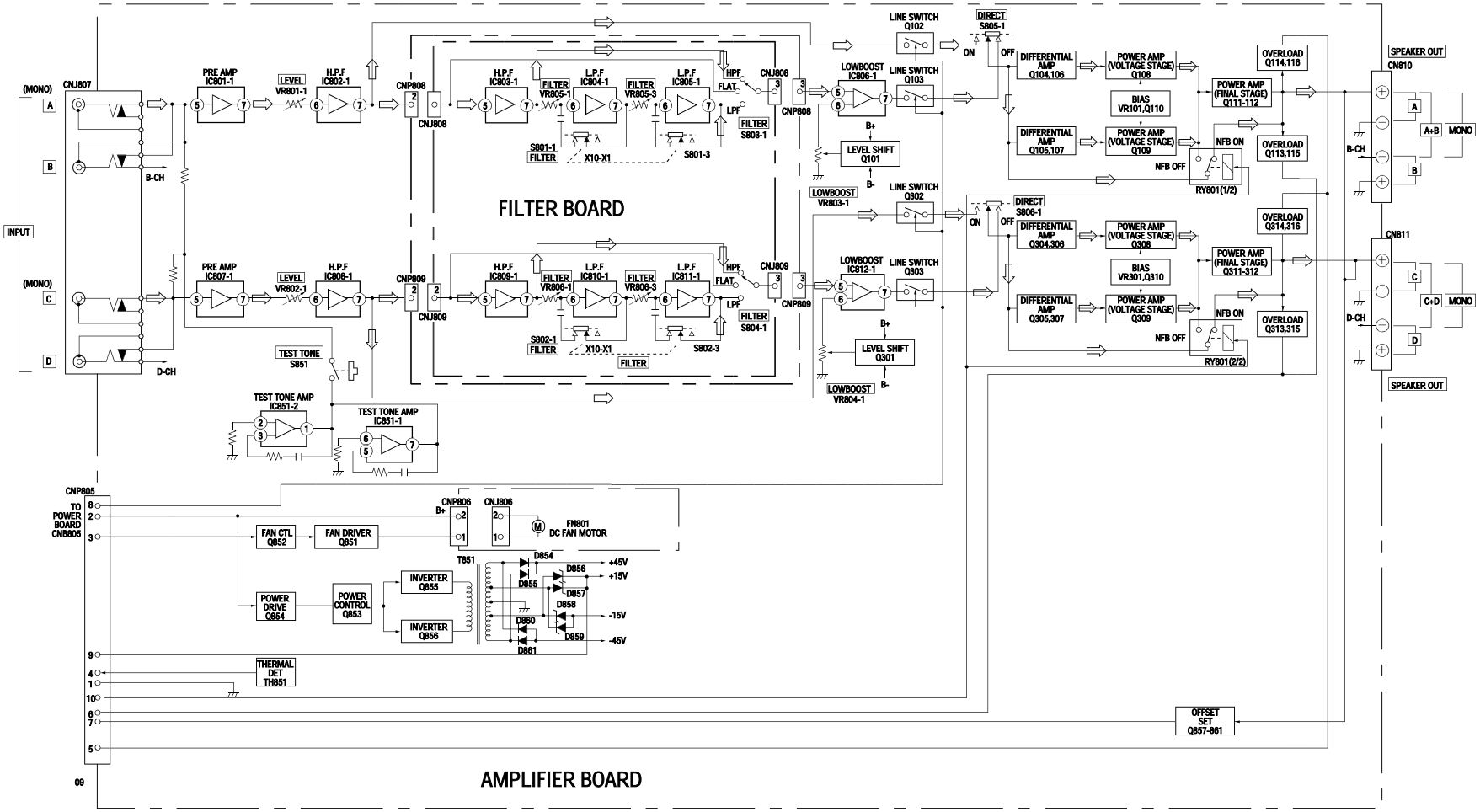
- AMPLIFIER BOARD - (Component side)





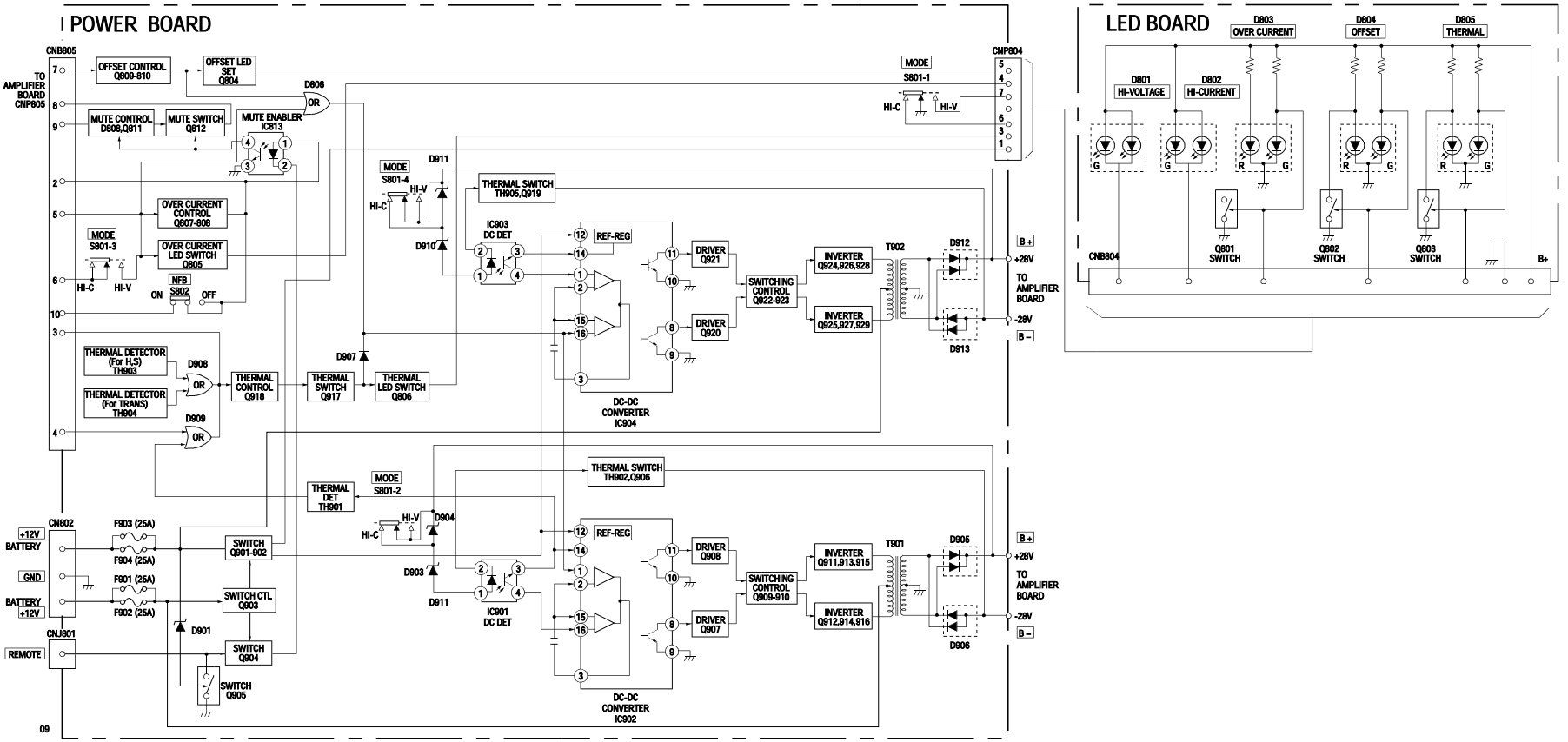
SECTION 5
DIAGRAMS

5-1. BLOCK DIAGRAM – AMPLIFIER SECTION –



• Signal path
⇨ : Audio

5-2. BLOCK DIAGRAM – POWER SECTION –



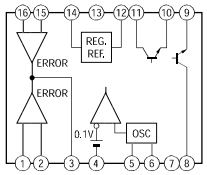
THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

For schematic diagrams.
Note:
- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- ▭ : panel designation.
- B+ : B+ Line.
- Powr voltage is dc 14.4V and fed with regulated dc power supply from +12V and REMOTE terminals.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark: POWER ON
  * : Impossible to mersure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : AUDIO

For printed wiring boards.
Note:
- ⟜—— : parts extracted from the component side.

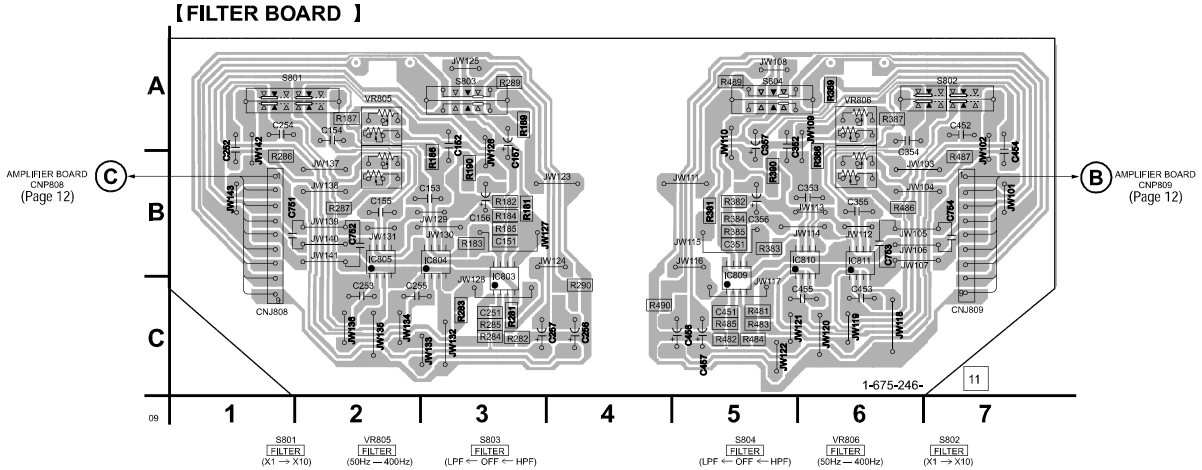
5-3. IC BLOCK DIAGRAM

- **POWER section**
  IC902, 904 µPC494G2



5-4. PRINTED WIRING BOARD – LED/FILTER SECTION –

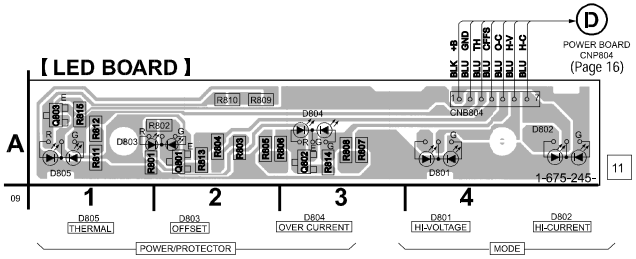
【FILTER BOARD 】



- **Semiconductor Location**

Ref. No.	Location
IC803	C-3
IC804	B-3
IC805	B-2
IC809	C-5
IC810	B-6
IC811	B-6

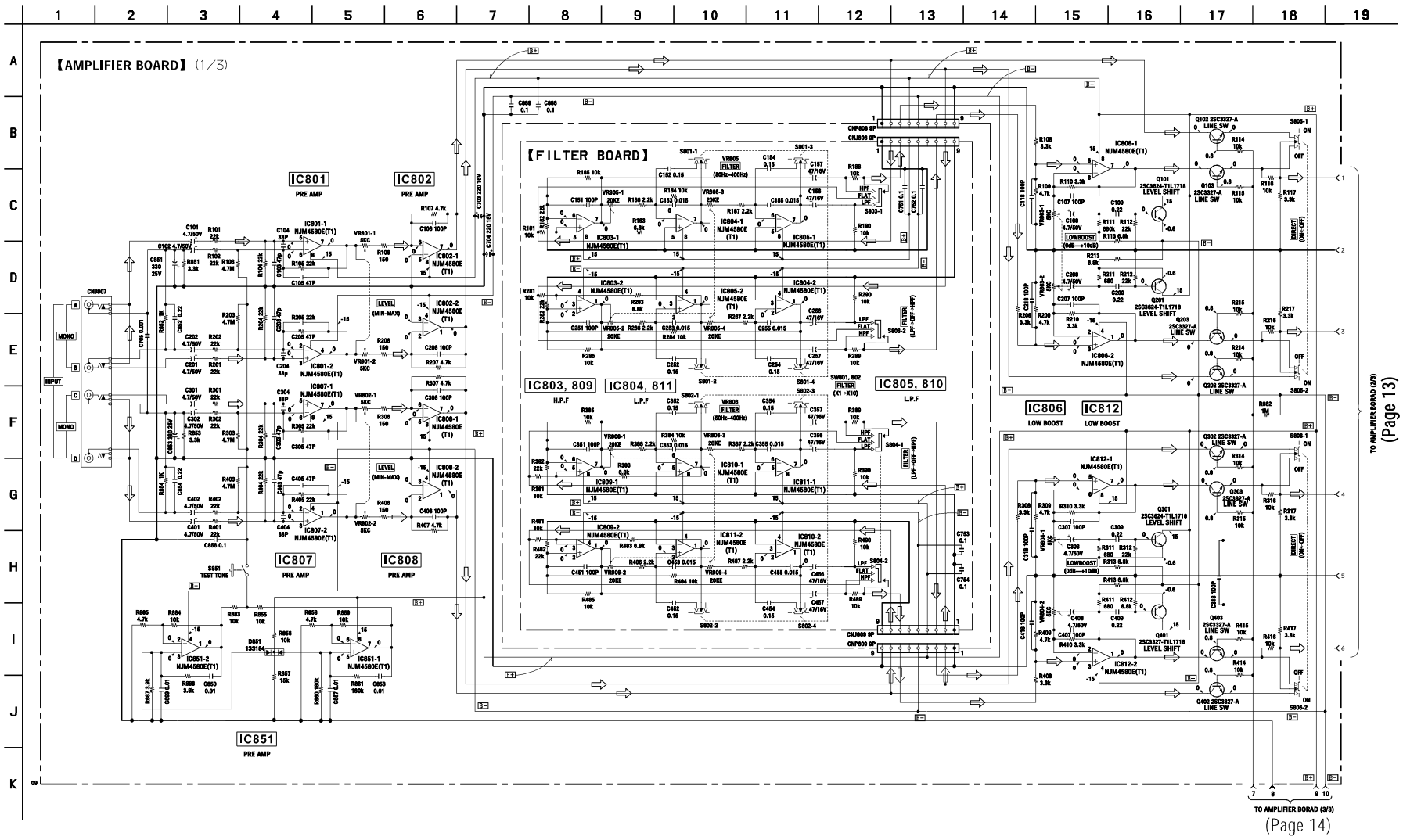
【LED BOARD 】



- **Semiconductor Location**

Ref. No.	Location
D801	A-4
D802	A-4
D803	A-2
D804	A-3
D805	A-1
Q801	A-2
Q802	A-3
Q803	A-1

5-5. SCHEMATIC DIAGRAM – FILTER/AMPLIFIER (1/3) SECTION – **• See page 10 for IC Block Diagram.**

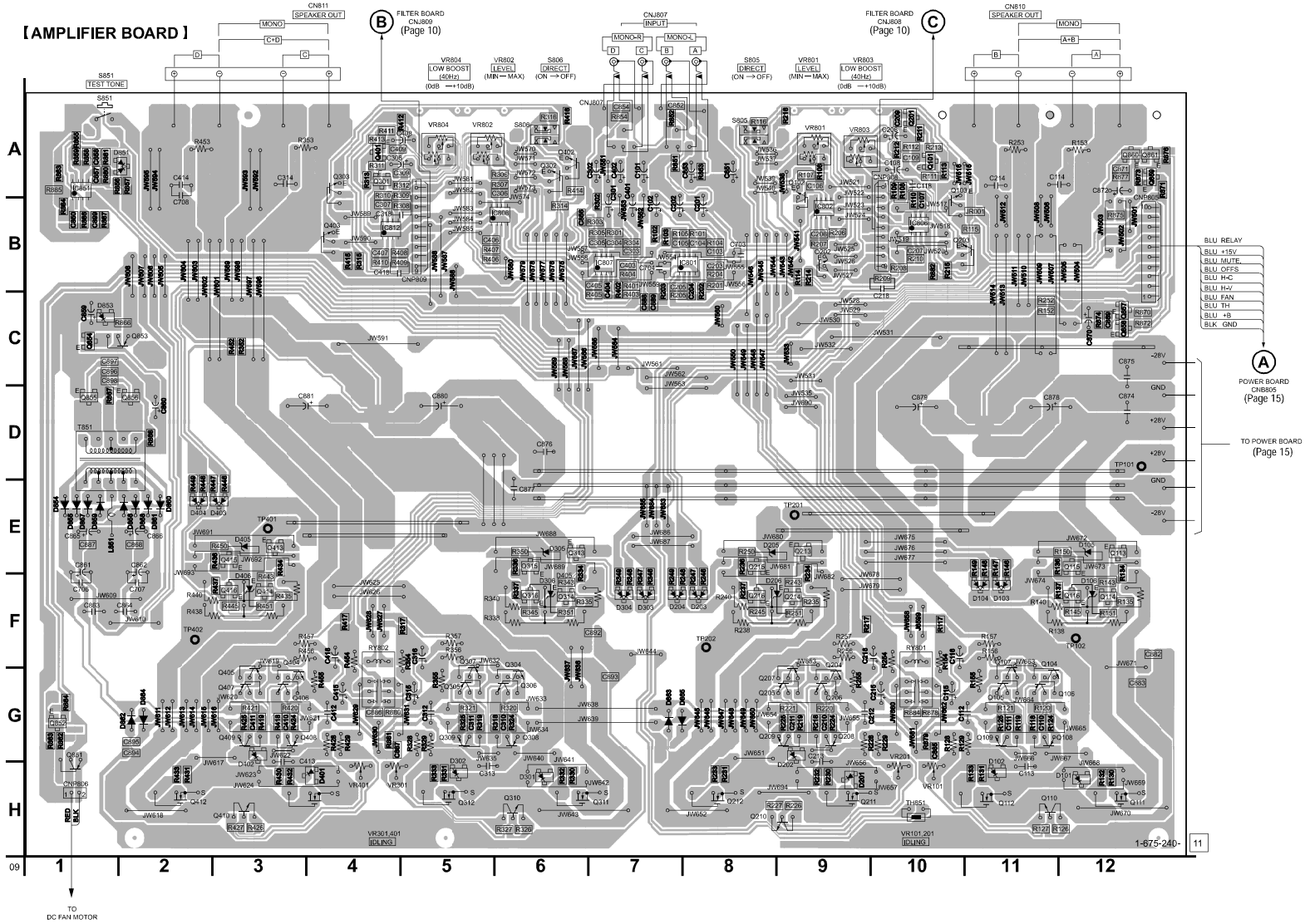


5-6. PRINTED WIRING BOARD – AMPLIFIER SECTION –

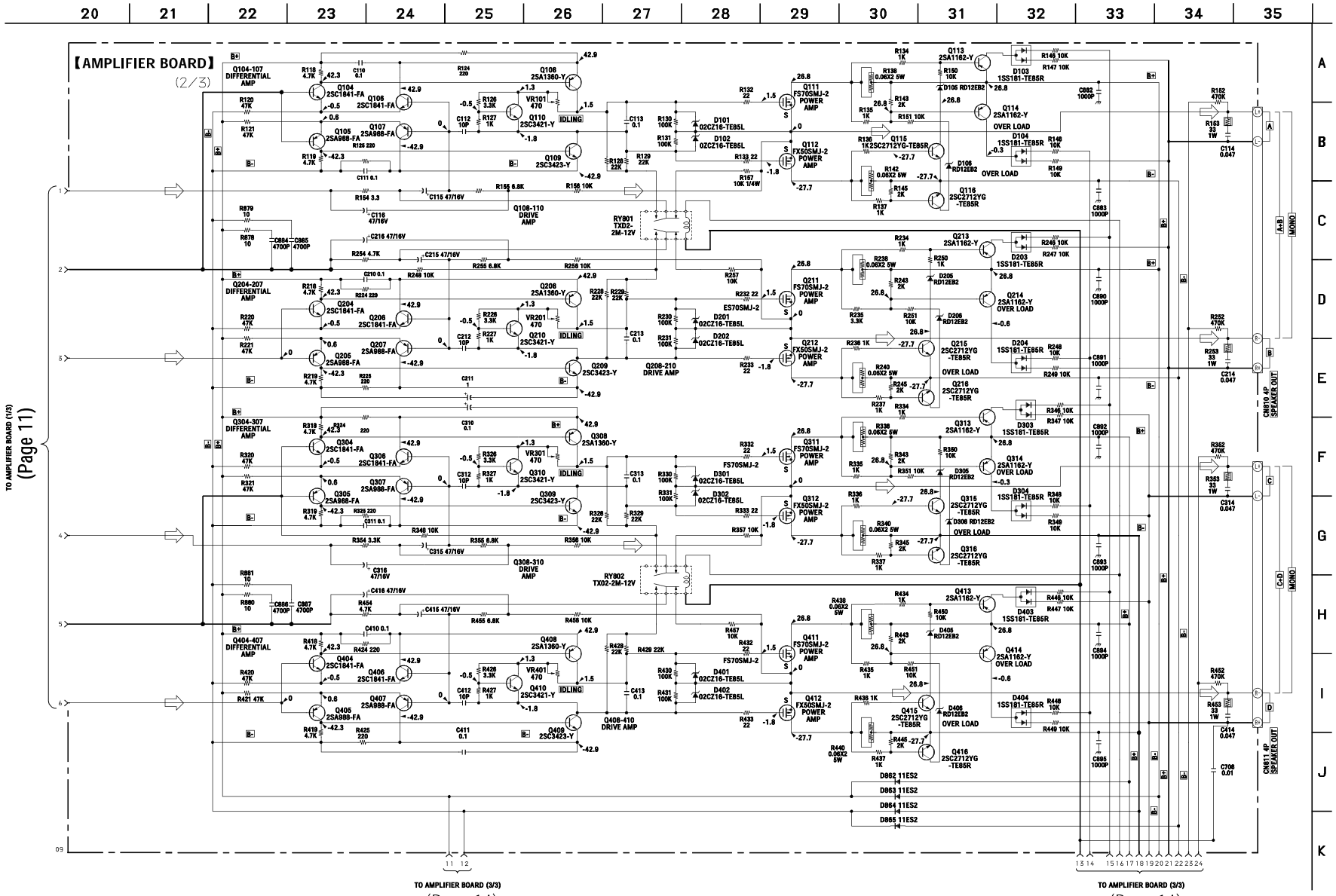
• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D101	H-12	Q202	B-9
D102	H-11	Q203	B-11
D103	F-11	Q204	G-9
D104	F-11	Q205	G-9
D105	E-9	Q206	G-9
D106	F-9	Q207	G-9
D201	H-9	Q208	G-9
D202	G-9	Q209	G-9
D203	F-8	Q210	H-8
D204	F-7	Q211	H-9
D205	E-8	Q212	H-8
D206	F-8	Q213	E-9
D301	H-6	Q214	F-9
D302	H-5	Q215	E-8
D303	F-7	Q216	F-8
D304	F-7	Q301	A-4
D305	E-6	Q302	A-6
D306	F-6	Q303	A-4
D401	H-4	Q304	G-6
D402	G-3	Q305	G-5
D403	E-3	Q306	G-6
D404	E-2	Q307	G-5
D405	E-3	Q308	G-6
D406	F-3	Q309	G-5
D851	A-2	Q310	H-6
D853	C-1	Q311	H-6
D854	E-1	Q312	H-5
D855	E-1	Q313	E-6
D856	E-2	Q314	F-6
D857	E-1	Q315	E-6
D858	E-2	Q401	A-4
D859	E-1	Q402	A-6
D860	E-2	Q403	B-4
D861	E-1	Q405	G-3
D862	G-2	Q406	G-3
D863	G-7	Q407	G-3
D864	G-2	Q408	G-3
D865	G-7	Q409	G-3
		Q410	H-3
IC801	B-8	Q411	H-3
IC802	B-9	Q412	H-2
IC806	B-10	Q413	E-3
IC807	B-7	Q414	F-3
IC808	B-6	Q415	E-3
IC812	B-4	Q416	F-3
IC851	A-1	Q851	H-1
		Q852	C-12
Q101	A-10	Q853	C-2
Q102	A-9	Q854	C-1
Q103	A-10	Q855	D-1
Q104	G-11	Q856	D-2
Q105	G-11	Q857	C-12
Q106	G-11	Q858	C-12
Q107	G-11	Q859	A-12
Q108	G-11	Q860	A-12
Q109	G-11	Q861	A-12
Q110	H-11		
Q111	H-12		
Q112	H-11		
Q113	E-12		
Q114	F-12		
Q115	E-12		
Q116	F-12		
Q201	A-10		

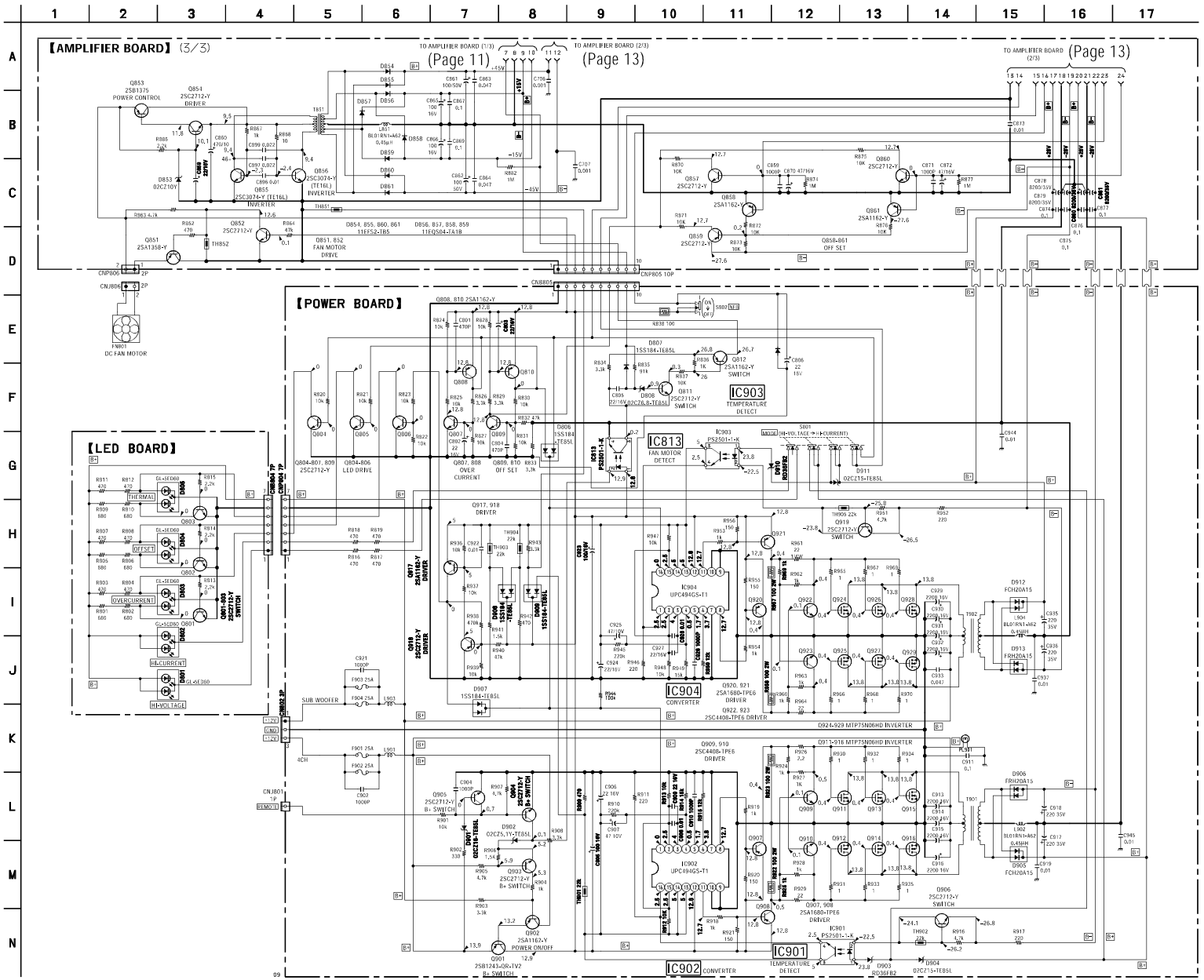
【AMPLIFIER BOARD】



5-7. SCHEMATIC DIAGRAM – AMPLIFIER (2/3) SECTION – **• See page 10 for IC Block Diagram.**

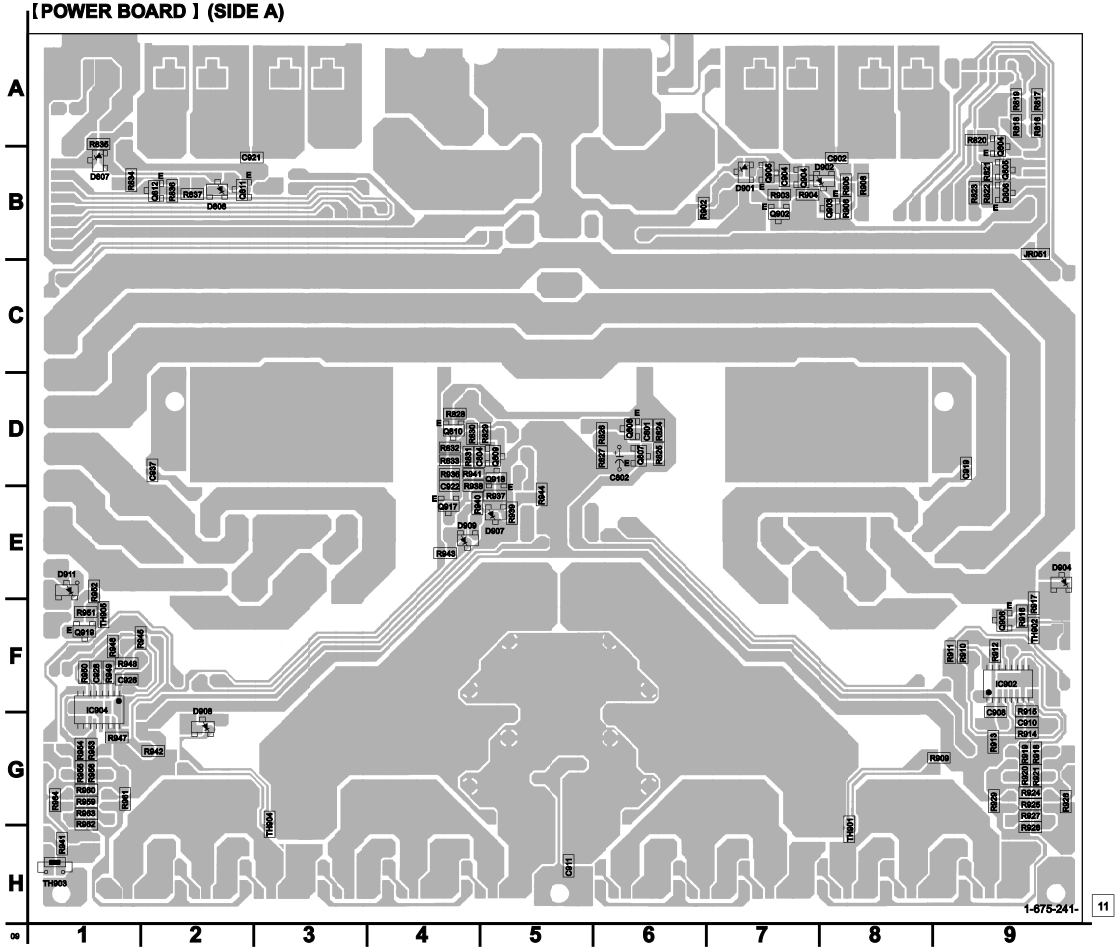


5-8. SCHEMATIC DIAGRAM – POWER/AMPLIFIER (3/3)/LED SECTION – • See page 10 for IC Block Diagram.



5-9. PRINTED WIRING BOARD – POWER SECTION –

【POWER BOARD 】(SIDE A)

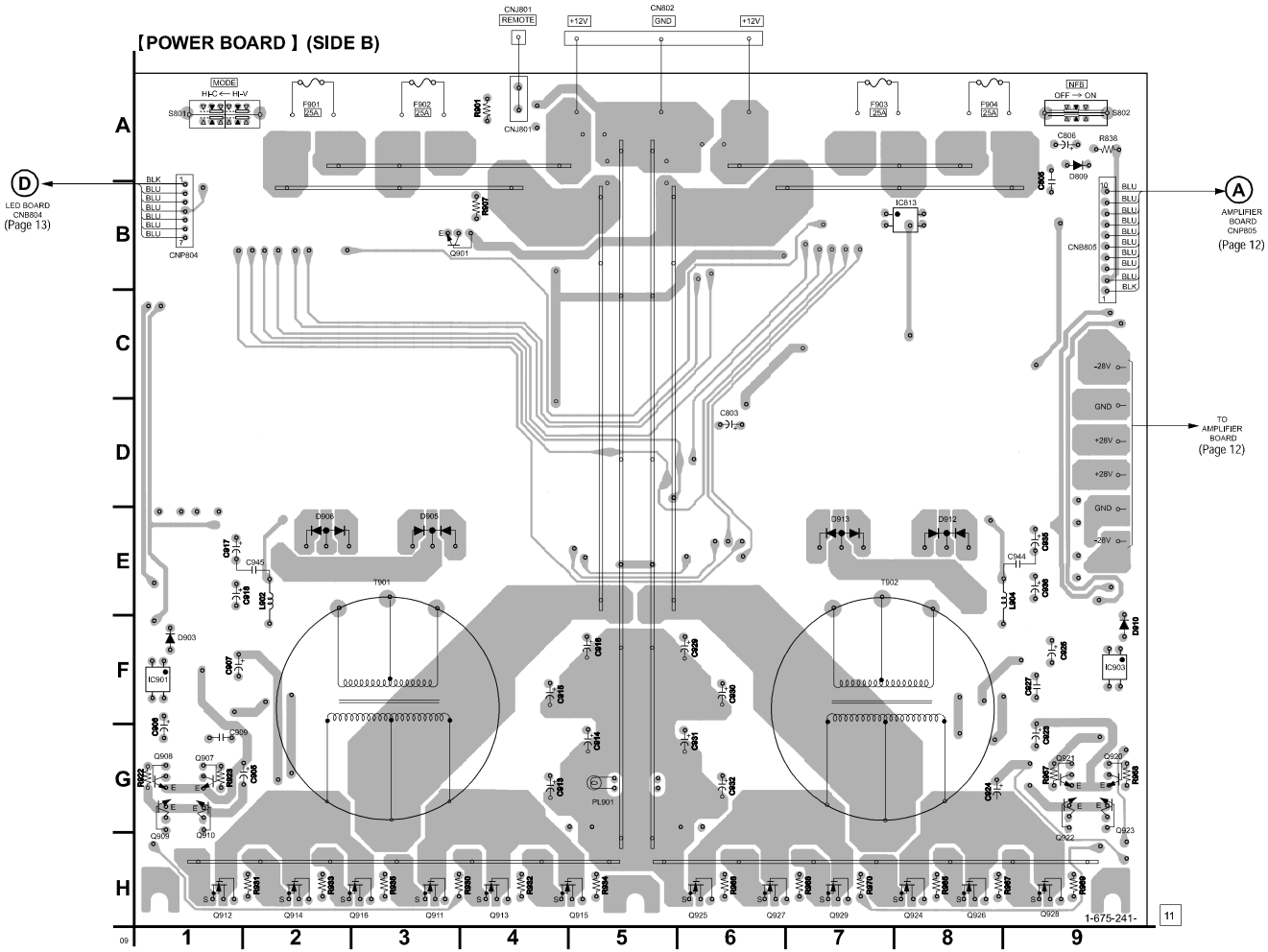


• **Semiconductor Location**

Ref. No.	Location
D806	E-5
D807	B-1
D808	B-2
D901	B-7
D902	B-7
D904	E-9
D907	E-5
D908	G-2
D909	E-4
D911	E-1
IC902	F-9
Q804	B-9
Q805	B-9
Q806	B-9
Q807	D-6
Q808	D-6
Q809	D-5
Q810	D-4
Q811	B-2
Q812	B-2
Q902	B-7
Q903	B-8
Q904	B-7
Q905	B-7
Q906	F-9
Q917	E-4
Q918	D-5
Q919	F-1

- **Semiconductor Location**

Ref. No.	Location
D809	A-1
D903	F-9
D905	E-7
D906	E-8
D910	F-1
D912	E-2
D913	E-3
IC813	B-3
IC901	F-9
IC903	F-1
Q901	B-7
Q907	G-9
Q908	G-9
Q909	G-9
Q910	G-9
Q911	H-7
Q912	H-9
Q913	H-6
Q914	H-8
Q915	H-6
Q916	H-8
Q920	G-1
Q921	G-1
Q922	G-1
Q923	G-1
Q924	H-3
Q925	H-4
Q926	H-2
Q927	H-4
Q928	H-1
Q929	H-3



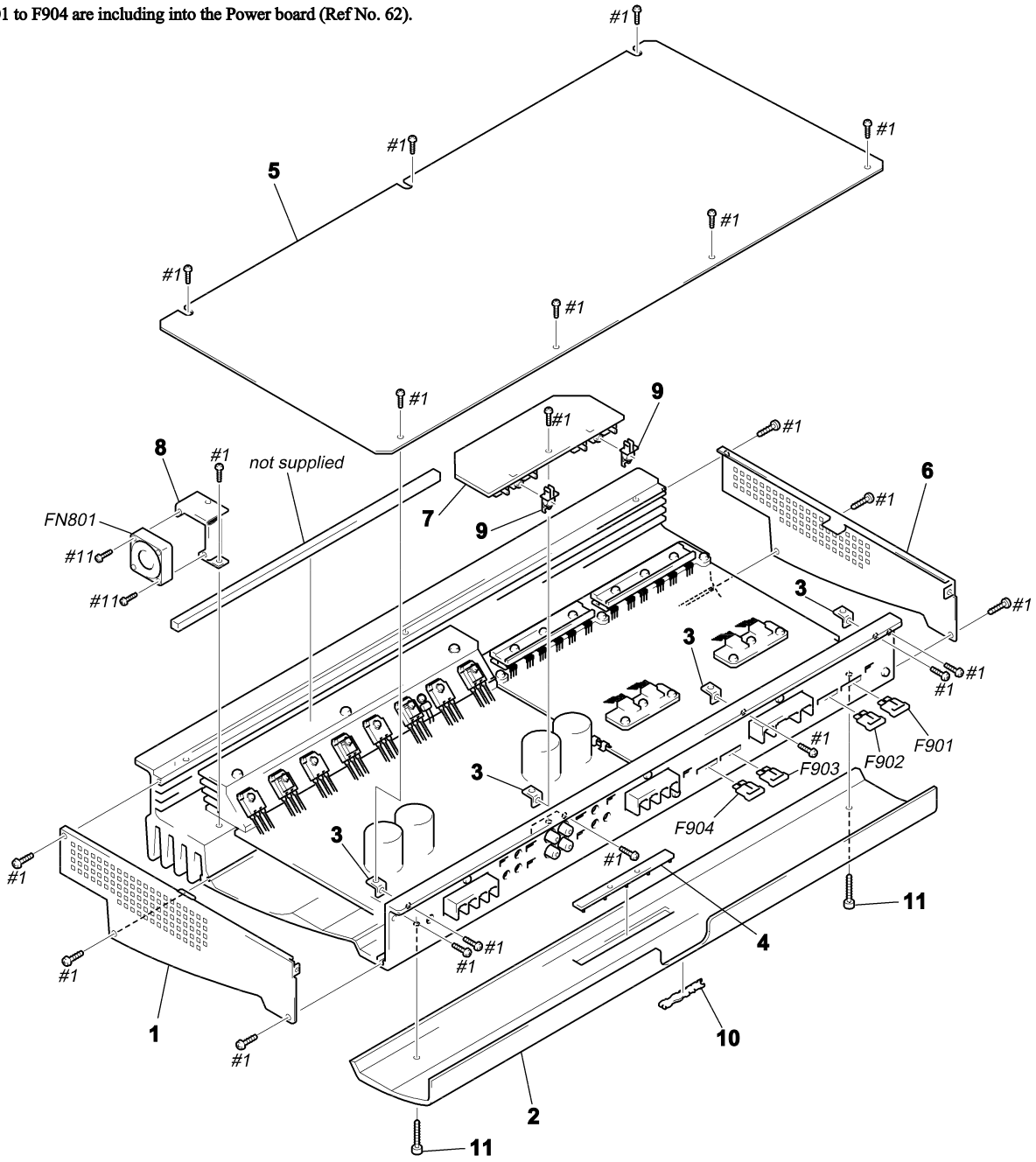
SECTION 6
EXPLODED VIEWS

NOTE:

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Abbreviation
  CND : Canadian model

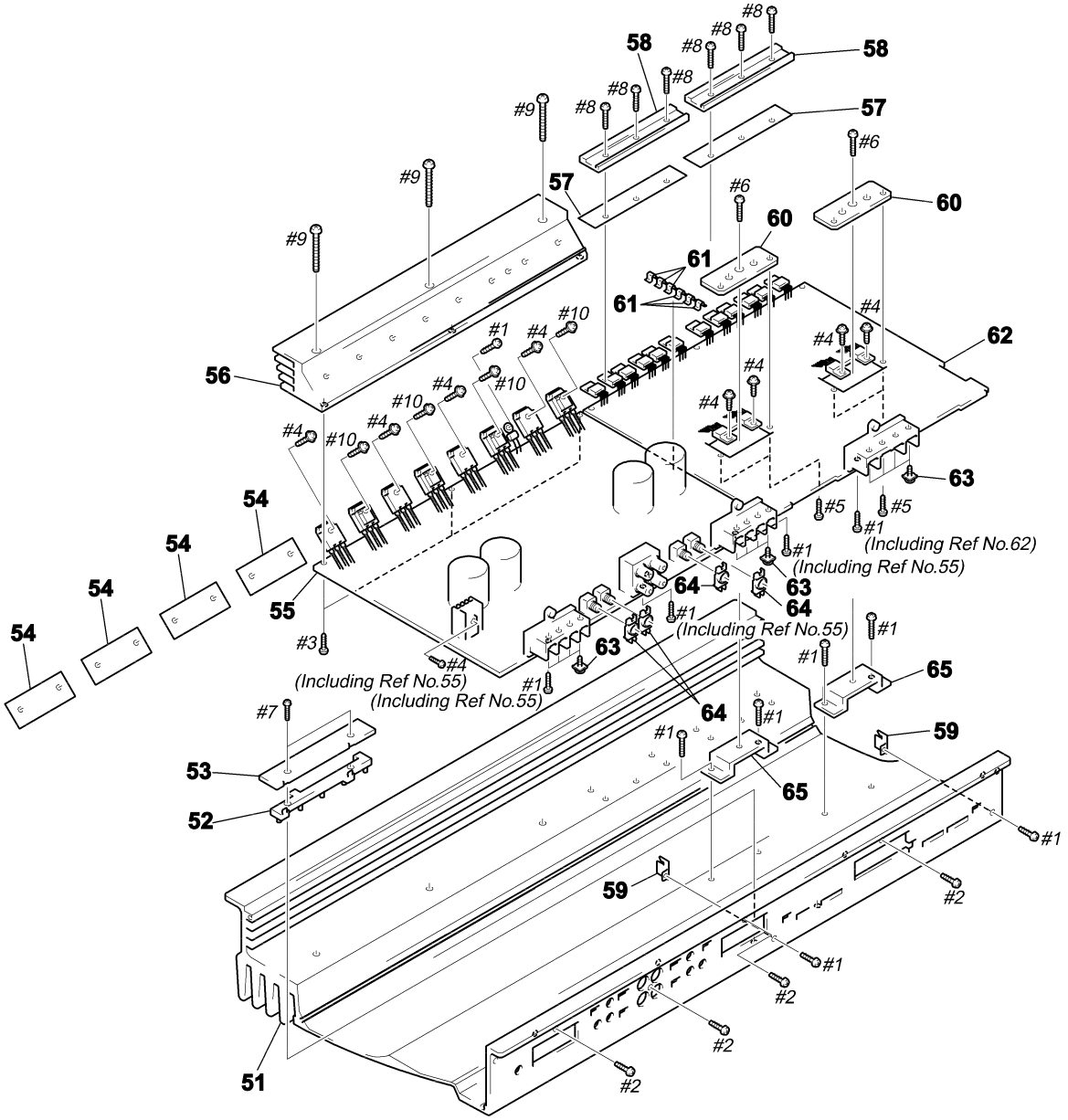
6-1. PLATE AND COVER SECTION

- F901 to F904 are including into the Power board (Ref No. 62).



Ref. No.	Part No.	Description	Remark
* 1	3-039-168-01	PANEL (R), SIDE	
* 2	3-039-205-01	HEAT SINK (COVER)	
* 3	3-039-173-01	PLATE (BKT), BOTTOM	
* 4	3-039-170-01	LENS(COVER)	
* 5	3-039-201-01	PLATE, BOTTOM	
* 6	3-039-167-01	PANEL (L), SIDE	
* 7	1-675-246-11	FILTER BOARD	
* 8	3-039-202-01	BRACKET (FAN)	
* 9	3-039-172-01	HOLDER, VOL	
10	3-704-177-11	EMBLEM (No. 7), SONY	
11	3-040-933-01	BOLT, M4 HEXAGON HOLE	
F901	1-576-256-11	FUSE (BLADE TYPE) (AUTO FUSE) (25A)	
F902	1-576-256-11	FUSE (BLADE TYPE) (AUTO FUSE) (25A)	
F903	1-576-256-11	FUSE (BLADE TYPE) (AUTO FUSE) (25A)	
F904	1-576-256-11	FUSE (BLADE TYPE) (AUTO FUSE) (25A)	
FN801	1-763-107-11	MOTOR, FAN	

6-2. BOARD AND HEAT SINK SECTION



Ref. No.	Part No.	Description	Remark
* 51	3-039-210-01	HEAT SINK (US,CND)	
* 51	3-039-210-11	HEAT SINK (AEP,UK,E)	
52	3-039-171-01	HOLDER, LED	
* 53	1-675-245-11	LED BOARD	
* 54	3-039-184-01	SHEET (AMP), INSULATING	
* 55	A-3317-930-A	AMPLIFIER BOARD, COMPLETE	
* 56	3-039-204-01	HEAT SINK (AMPLIFIER), SUB	
* 57	3-039-183-01	SHEET (POWER), INSULATING	
* 58	3-033-321-01	RETAINER	
* 59	3-039-200-01	BRACKET (PWB)	
* 60	3-039-179-01	HEAT SINK, SPACER	
* 61	3-039-180-01	BAR(PC-PC), BUS	
* 62	A-3317-933-A	POWER BOARD, COMPLETE	
63	3-912-431-01	SCREW (P)	
* 64	3-039-172-01	HOLDER, VOL	
* 65	3-039-178-01	HEAT SINK (RECTIFIER), SUB	

SECTION 7
ELECTRICAL PARTS LIST

AMPLIFIER

Note:

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS
  All resistors are in ohms
  METAL: Metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F : nonflammable
- SEMICONDUCTORS
  In each case, u: μ , for example:
  uA...: μ A..., uPA...: μ PA..., uPB...: μ PB..., uPC...: μ PC..., uPD...: μ PD...
- CAPACITORS
  uF : μ F
- COILS
  uH : μ H
- Abbreviation
  CND : Canadian model

Ref. No.	Part No.	Description			Remark
*	A-3317-930-A	AMPLIFIER BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C101	1-126-047-81	ELECT	4.7uF	20%	50V
C102	1-126-047-81	ELECT	4.7uF	20%	50V
C103	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C104	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C105	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C106	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C107	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C108	1-126-047-81	ELECT	4.7uF	20%	50V
C109	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C110	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C111	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C112	1-102-508-11	CERAMIC	10PF	0.5PF	50V
C113	1-136-165-00	FILM	0.1uF	5%	50V
C114	1-136-161-00	FILM	0.047uF	5%	50V
C115	1-126-008-51	ELECT	47uF	20%	16V
C116	1-126-008-51	ELECT	47uF	20%	16V
C118	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C201	1-126-047-81	ELECT	4.7uF	20%	50V
C202	1-126-047-81	ELECT	4.7uF	20%	50V
C203	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C204	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C205	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C206	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C207	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C208	1-126-047-81	ELECT	4.7uF	20%	50V
C209	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C210	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C211	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C212	1-102-508-11	CERAMIC	10PF	0.5PF	50V
C213	1-136-165-00	FILM	0.1uF	5%	50V
C214	1-136-161-00	FILM	0.047uF	5%	50V
C215	1-126-008-51	ELECT	47uF	20%	16V
C216	1-126-008-51	ELECT	47uF	20%	16V
C218	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C301	1-126-047-81	ELECT	4.7uF	20%	50V
C302	1-126-047-81	ELECT	4.7uF	20%	50V
C303	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C304	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C305	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C306	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C307	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C308	1-126-047-81	ELECT	4.7uF	20%	50V

Ref. No.	Part No.	Description			Remark
C309	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C310	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C311	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C312	1-102-508-11	CERAMIC	10PF	0.5PF	50V
C313	1-136-165-00	FILM	0.1uF	5%	50V
C314	1-136-161-00	FILM	0.047uF	5%	50V
C315	1-126-008-51	ELECT	47uF	20%	16V
C316	1-126-008-51	ELECT	47uF	20%	16V
C318	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C401	1-126-047-81	ELECT	4.7uF	20%	50V
C402	1-126-047-81	ELECT	4.7uF	20%	50V
C403	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C404	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C405	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C406	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C407	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C408	1-126-047-81	ELECT	4.7uF	20%	50V
C409	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C410	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C411	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C412	1-102-508-11	CERAMIC	10PF	0.5PF	50V
C413	1-136-165-00	FILM	0.1uF	5%	50V
C414	1-136-161-00	FILM	0.047uF	5%	50V
C415	1-126-008-51	ELECT	47uF	20%	16V
C416	1-126-008-51	ELECT	47uF	20%	16V
C418	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C703	1-126-010-81	ELECT	220uF		16V
C704	1-126-010-81	ELECT	220uF		16V
C705	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C706	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C707	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C708	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C850	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C851	1-126-025-11	ELECT	330uF	20%	25V
C852	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C853	1-126-025-11	ELECT	330uF	20%	25V
C854	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C856	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C857	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C858	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C859	1-126-006-11	ELECT	22uF	20%	16V
C860	1-124-997-11	ELECT	470uF	20%	10V
C861	1-126-052-11	ELECT	100uF	20%	50V
C862	1-126-052-11	ELECT	100uF	20%	50V
C863	1-136-161-00	FILM	0.047uF	5%	50V
C864	1-136-161-00	FILM	0.047uF	5%	50V

AMPLIFIER

Ref. No.	Part No.	Description			Remark
C865	1-126-009-81	ELECT	100uF	20%	16V
C866	1-126-009-81	ELECT	100uF	20%	16V
C867	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C868	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C869	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C870	1-126-008-51	ELECT	47uF	20%	16V
C871	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C872	1-126-008-51	ELECT	47uF	20%	16V
C874	1-136-165-00	FILM	0.1uF	5%	50V
C875	1-136-165-00	FILM	0.1uF	5%	50V
C876	1-136-165-00	FILM	0.1uF	5%	50V
C877	1-136-165-00	FILM	0.1uF	5%	50V
C878	1-131-730-11	ELECT	8200uF		35V
C879	1-131-730-11	ELECT	8200uF		35V
C880	1-131-730-11	ELECT	8200uF		35V
C881	1-131-730-11	ELECT	8200uF		35V
C882	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C883	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C884	1-163-029-11	CERAMIC CHIP	0.0047uF	50V	
C885	1-163-029-11	CERAMIC CHIP	0.0047uF	50V	
C886	1-163-029-11	CERAMIC CHIP	0.0047uF	50V	
C887	1-163-029-11	CERAMIC CHIP	0.0047uF	50V	
C888	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C889	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C890	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C891	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C892	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C893	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C894	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C895	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C896	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C897	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C898	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C899	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
		< CONNECTOR >			
CN810	1-694-619-11	TERMINAL BOARD 4P (SPEAKER OUT/C/D CHANNEL)			
CN811	1-694-619-11	TERMINAL BOARD 4P (SPEAKER OUT/A/B CHANNEL)			
		< JACK >			
CNJ807	1-770-068-71	JACK, PIN 4P (INPUT MONO A/B C/D)			
		< CONNECTOR >			
* CNP805	1-564-513-11	PLUG, CONNECTOR 10P			
* CNP806	1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P			
CNP808	1-784-917-11	CONNECTOR, BOARD TO BOARD 9P			
CNP809	1-784-917-11	CONNECTOR, BOARD TO BOARD 9P			
		< DIODE >			
D101	8-719-025-50	DIODE 02CZ16-TE85L			
D102	8-719-025-50	DIODE 02CZ16-TE85L			
D103	8-719-820-05	DIODE 1SS181-TE85R			
D104	8-719-820-05	DIODE 1SS181-TE85R			
D105	8-719-100-65	DIODE RD12EB2			

Ref. No.	Part No.	Description	Remark
D106	8-719-100-65	DIODE RD12EB2	
D201	8-719-025-50	DIODE 02CZ16-TE85L	
D202	8-719-025-50	DIODE 02CZ16-TE85L	
D203	8-719-820-05	DIODE 1SS181-TE85R	
D204	8-719-820-05	DIODE 1SS181-TE85R	
D205	8-719-100-65	DIODE RD12EB2	
D206	8-719-100-65	DIODE RD12EB2	
D301	8-719-025-50	DIODE 02CZ16-TE85L	
D302	8-719-025-50	DIODE 02CZ16-TE85L	
D303	8-719-820-05	DIODE 1SS181-TE85R	
D304	8-719-820-05	DIODE 1SS181-TE85R	
D305	8-719-100-65	DIODE RD12EB2	
D306	8-719-100-65	DIODE RD12EB2	
D401	8-719-025-50	DIODE 02CZ16-TE85L	
D402	8-719-025-50	DIODE 02CZ16-TE85L	
D403	8-719-820-05	DIODE 1SS181-TE85R	
D404	8-719-820-05	DIODE 1SS181-TE85R	
D405	8-719-100-65	DIODE RD12EB2	
D406	8-719-100-65	DIODE RD12EB2	
D851	8-719-801-78	DIODE 1SS184-TE85L	
D853	8-719-018-77	DIODE 02CZ10Y	
D854	8-719-987-67	DIODE 11EFS2-TB5	
D855	8-719-987-67	DIODE 11EFS2-TB5	
D856	8-719-210-21	DIODE 11EQS04-TA1B	
D857	8-719-210-21	DIODE 11EQS04-TA1B	
D858	8-719-210-21	DIODE 11EQS04-TA1B	
D859	8-719-210-21	DIODE 11EQS04-TA1B	
D860	8-719-987-67	DIODE 11EFS2-TB5	
D861	8-719-987-67	DIODE 11EFS2-TB5	
D862	8-719-200-82	DIODE 11ES2-TB5	
D863	8-719-200-82	DIODE 11ES2-TB5	
D864	8-719-200-82	DIODE 11ES2-TB5	
D865	8-719-200-82	DIODE 11ES2-TB5	
		< IC >	
IC801	8-759-711-82	IC NJM4580E(T1)	
IC802	8-759-711-82	IC NJM4580E(T1)	
IC806	8-759-711-82	IC NJM4580E(T1)	
IC807	8-759-711-82	IC NJM4580E(T1)	
IC808	8-759-711-82	IC NJM4580E(T1)	
IC812	8-759-711-82	IC NJM4580E(T1)	
IC851	8-759-711-82	IC NJM4580E(T1)	
		< COIL >	
L852	1-410-396-71	INDUCTOR 0.45uH	
L951	1-410-396-71	INDUCTOR 0.45uH	
		< TRANSISTOR >	
Q101	8-729-107-43	TRANSISTOR 2SC3624-T1L1718	
Q102	8-729-203-48	TRANSISTOR 2SC3327-A	
Q103	8-729-203-48	TRANSISTOR 2SC3327-A	
Q104	8-729-184-53	TRANSISTOR 2SC1841-FA	
Q105	8-729-140-82	TRANSISTOR 2SA988-FA	
Q106	8-729-184-53	TRANSISTOR 2SC1841-FA	
Q107	8-729-140-82	TRANSISTOR 2SA988-FA	
Q108	8-729-209-18	TRANSISTOR 2SA1360-Y	
Q109	8-729-203-45	TRANSISTOR 2SC3423-Y	

Ref. No.	Part No.	Description		Remark
Q110	8-729-207-82	TRANSISTOR	2SC3421-Y	
Q111	8-729-049-52	TRANSISTOR	FS70SMJ-2	
Q112	8-729-049-53	TRANSISTOR	FX50SMJ-2	
Q113	8-729-216-21	TRANSISTOR	2SA1162-Y	
Q114	8-729-216-21	TRANSISTOR	2SA1162-Y	
Q115	8-729-230-51	TRANSISTOR	2SC2712YG-TE85R	
Q116	8-729-230-51	TRANSISTOR	2SC2712YG-TE85R	
Q201	8-729-107-43	TRANSISTOR	2SC3624-T1L1718	
Q202	8-729-203-48	TRANSISTOR	2SC3327-A	
Q203	8-729-203-48	TRANSISTOR	2SC3327-A	
Q204	8-729-184-53	TRANSISTOR	2SC1841-FA	
Q205	8-729-140-82	TRANSISTOR	2SA988-FA	
Q206	8-729-184-53	TRANSISTOR	2SC1841-FA	
Q207	8-729-140-82	TRANSISTOR	2SA988-FA	
Q208	8-729-209-18	TRANSISTOR	2SA1360-Y	
Q209	8-729-203-45	TRANSISTOR	2SC3423-Y	
Q210	8-729-207-82	TRANSISTOR	2SC3421-Y	
Q211	8-729-049-52	TRANSISTOR	FS70SMJ-2	
Q212	8-729-049-53	TRANSISTOR	FX50SMJ-2	
Q213	8-729-216-21	TRANSISTOR	2SA1162-Y	
Q214	8-729-216-21	TRANSISTOR	2SA1162-Y	
Q215	8-729-230-51	TRANSISTOR	2SC2712YG-TE85R	
Q216	8-729-230-51	TRANSISTOR	2SC2712YG-TE85R	
Q301	8-729-107-43	TRANSISTOR	2SC3624-T1L1718	
Q302	8-729-203-48	TRANSISTOR	2SC3327-A	
Q303	8-729-203-48	TRANSISTOR	2SC3327-A	
Q304	8-729-184-53	TRANSISTOR	2SC1841-FA	
Q305	8-729-140-82	TRANSISTOR	2SA988-FA	
Q306	8-729-184-53	TRANSISTOR	2SC1841-FA	
Q307	8-729-140-82	TRANSISTOR	2SA988-FA	
Q308	8-729-209-18	TRANSISTOR	2SA1360-Y	
Q309	8-729-203-45	TRANSISTOR	2SC3423-Y	
Q310	8-729-207-82	TRANSISTOR	2SC3421-Y	
Q311	8-729-049-52	TRANSISTOR	FS70SMJ-2	
Q312	8-729-049-53	TRANSISTOR	FX50SMJ-2	
Q313	8-729-216-21	TRANSISTOR	2SA1162-Y	
Q314	8-729-216-21	TRANSISTOR	2SA1162-Y	
Q315	8-729-230-51	TRANSISTOR	2SC2712YG-TE85R	
Q316	8-729-230-51	TRANSISTOR	2SC2712YG-TE85R	
Q401	8-729-107-43	TRANSISTOR	2SC3624-T1L1718	
Q402	8-729-203-48	TRANSISTOR	2SC3327-A	
Q403	8-729-203-48	TRANSISTOR	2SC3327-A	
Q404	8-729-184-53	TRANSISTOR	2SC1841-FA	
Q405	8-729-140-82	TRANSISTOR	2SA988-FA	
Q406	8-729-184-53	TRANSISTOR	2SC1841-FA	
Q407	8-729-140-82	TRANSISTOR	2SA988-FA	
Q408	8-729-209-18	TRANSISTOR	2SA1360-Y	
Q409	8-729-203-45	TRANSISTOR	2SC3423-Y	
Q410	8-729-207-82	TRANSISTOR	2SC3421-Y	
Q411	8-729-049-52	TRANSISTOR	FS70SMJ-2	
Q412	8-729-049-53	TRANSISTOR	FX50SMJ-2	
Q413	8-729-216-21	TRANSISTOR	2SA1162-Y	
Q414	8-729-216-21	TRANSISTOR	2SA1162-Y	
Q415	8-729-230-51	TRANSISTOR	2SC2712YG-TE85R	
Q416	8-729-230-51	TRANSISTOR	2SC2712YG-TE85R	
Q851	8-729-207-89	TRANSISTOR	2SA1358-Y	
Q852	8-729-230-49	TRANSISTOR	2SC2712-Y	
Q853	8-729-141-83	TRANSISTOR	2SB1375	
Q854	8-729-230-49	TRANSISTOR	2SC2712-Y	
Q855	8-729-205-88	TRANSISTOR	2SC3074-Y(TE16L)	
Q856	8-729-205-88	TRANSISTOR	2SC3074-Y(TE16L)	
Q857	8-729-230-49	TRANSISTOR	2SC2712-Y	
Q858	8-729-216-21	TRANSISTOR	2SA1162-Y	
Q859	8-729-230-49	TRANSISTOR	2SC2712-Y	
Q860	8-729-230-49	TRANSISTOR	2SC2712-Y	
Q861	8-729-216-21	TRANSISTOR	2SA1162-Y	

< RESISTOR >

Ref. No.	Part No.	Description			Remark
R101	1-208-518-61	RES,CHIP	22K	2%	1/10W
R102	1-208-518-61	RES,CHIP	22K	2%	1/10W
R103	1-208-291-11	RES,CHIP	4.7M	5%	1/10W
R104	1-208-518-61	RES,CHIP	22K	2%	1/10W
R105	1-208-518-61	RES,CHIP	22K	2%	1/10W
R106	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R107	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R108	1-208-449-61	RES,CHIP	3.3K	2%	1/10W
R109	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R110	1-208-449-61	RES,CHIP	3.3K	2%	1/10W
R111	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R112	1-208-518-61	RES,CHIP	22K	2%	1/10W
R113	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R114	1-208-510-61	RES,CHIP	10K	2%	1/8W
R115	1-208-510-61	RES,CHIP	10K	2%	1/8W
R116	1-208-462-61	RES,CHIP	10K	2%	1/10W
R117	1-208-449-61	RES,CHIP	3.3K	2%	1/10W
R118	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R119	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R120	1-216-238-00	RES,CHIP	47K	2%	1/8W
R121	1-216-238-00	RES,CHIP	47K	2%	1/8W
R124	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R125	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R126	1-208-449-61	RES,CHIP	3.3K	2%	1/10W
R127	1-208-437-61	RES,CHIP	1K	2%	1/10W
R128	1-249-955-11	CARBON	22K	5%	1/4W
R129	1-249-955-11	CARBON	22K	5%	1/4W
R130	1-208-534-61	RES,CHIP	100K	2%	1/10W
R131	1-208-534-61	RES,CHIP	100K	2%	1/10W
R132	1-211-960-11	RES,CHIP	22	2%	1/10W
R133	1-211-960-11	RES,CHIP	22	2%	1/10W
R134	1-208-437-61	RES,CHIP	1K	2%	1/10W
R135	1-208-437-61	RES,CHIP	1K	2%	1/10W
R136	1-208-437-61	RES,CHIP	1K	2%	1/10W
R137	1-208-437-61	RES,CHIP	1K	2%	1/10W
R138	1-242-799-11	METAL	0.06/0.06		5W F
R139	1-242-799-11	METAL	0.06/0.06		5W F
R140	1-242-799-11	METAL	0.06/0.06		5W F
R141	1-242-799-11	METAL	0.06/0.06		5W F
R143	1-208-789-11	RES,CHIP	2K	2%	1/10W
R145	1-208-789-11	RES,CHIP	2K	2%	1/10W
R146	1-208-462-61	RES,CHIP	10K	2%	1/10W
R147	1-208-462-61	RES,CHIP	10K	2%	1/10W
R148	1-208-462-61	RES,CHIP	10K	2%	1/10W
R149	1-208-462-61	RES,CHIP	10K	2%	1/10W

AMPLIFIER

Ref. No.	Part No.	Description			Remark
R150	1-208-462-61	RES,CHIP	10K	2%	1/10W
R151	1-208-462-61	RES,CHIP	10K	2%	1/10W
R152	1-208-550-61	RES,CHIP	470K	2%	1/10W
R153	1-217-784-11	FUSIBLE	10	5%	5W F
R154	1-249-935-11	CARBON	3.3K	5%	1/4W
R155	1-249-943-11	CARBON	6.8K	5%	1/4W
R156	1-249-576-11	CARBON	10K	5%	1/4W
R157	1-249-576-11	CARBON	10K	5%	1/4W
R201	1-208-518-61	RES,CHIP	22K	2%	1/10W
R202	1-208-518-61	RES,CHIP	22K	2%	1/10W
R203	1-208-291-11	RES,CHIP	4.7M	5%	1/10W
R204	1-208-518-61	RES,CHIP	22K	2%	1/10W
R205	1-208-518-61	RES,CHIP	22K	2%	1/10W
R206	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R207	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R208	1-208-449-61	RES,CHIP	3.3K	2%	1/10W
R209	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R210	1-208-449-61	RES,CHIP	3.3K	2%	1/10W
R211	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R212	1-208-518-61	RES,CHIP	22K	2%	1/10W
R213	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R214	1-208-510-61	RES,CHIP	10K	2%	1/8W
R215	1-208-510-61	RES,CHIP	10K	2%	1/8W
R216	1-208-462-61	RES,CHIP	10K	2%	1/10W
R217	1-208-449-61	RES,CHIP	3.3K	2%	1/10W
R218	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R219	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R220	1-216-238-00	RES,CHIP	47K	2%	1/8W
R221	1-216-238-00	RES,CHIP	47K	2%	1/8W
R224	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R225	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R226	1-208-449-61	RES,CHIP	3.3K	2%	1/10W
R227	1-208-437-61	RES,CHIP	1K	2%	1/10W
R228	1-249-955-11	CARBON	22K	5%	1/4W
R229	1-249-955-11	CARBON	22K	5%	1/4W
R230	1-208-534-61	RES,CHIP	100K	2%	1/10W
R231	1-208-534-61	RES,CHIP	100K	2%	1/10W
R232	1-211-960-11	RES,CHIP	22	2%	1/10W
R233	1-211-960-11	RES,CHIP	22	2%	1/10W
R234	1-208-437-61	RES,CHIP	1K	2%	1/10W
R235	1-208-437-61	RES,CHIP	1K	2%	1/10W
R236	1-208-437-61	RES,CHIP	1K	2%	1/10W
R237	1-208-437-61	RES,CHIP	1K	2%	1/10W
R238	1-242-799-11	METAL	0.06/0.06		5W F
R239	1-242-799-11	METAL	0.06/0.06		5W F
R240	1-242-799-11	METAL	0.06/0.06		5W F
R241	1-242-799-11	METAL	0.06/0.06		5W F
R243	1-208-789-11	RES,CHIP	2K	2%	1/10W
R245	1-208-789-11	RES,CHIP	2K	2%	1/10W
R246	1-208-462-61	RES,CHIP	10K	2%	1/10W
R247	1-208-462-61	RES,CHIP	10K	2%	1/10W
R248	1-208-462-61	RES,CHIP	10K	2%	1/10W
R249	1-208-462-61	RES,CHIP	10K	2%	1/10W
R250	1-208-462-61	RES,CHIP	10K	2%	1/10W
R251	1-208-462-61	RES,CHIP	10K	2%	1/10W
R252	1-208-550-61	RES,CHIP	470K	2%	1/10W
R253	1-217-784-11	FUSIBLE	10	5%	5W F

Ref. No.	Part No.	Description			Remark
R254	1-249-568-11	CARBON	4.7K	5%	1/4W
R255	1-249-943-11	CARBON	6.8K	5%	1/4W
R256	1-249-576-11	CARBON	10K	5%	1/4W
R257	1-249-576-11	CARBON	10K	5%	1/4W
R301	1-208-518-61	RES,CHIP	22K	2%	1/10W
R302	1-208-518-61	RES,CHIP	22K	2%	1/10W
R303	1-208-291-11	RES,CHIP	4.7M	5%	1/10W
R304	1-208-518-61	RES,CHIP	22K	2%	1/10W
R305	1-208-518-61	RES,CHIP	22K	2%	1/10W
R306	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R307	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R308	1-208-449-61	RES,CHIP	3.3K	2%	1/10W
R309	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R310	1-208-449-61	RES,CHIP	3.3K	2%	1/10W
R311	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R312	1-208-518-61	RES,CHIP	22K	2%	1/10W
R313	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R314	1-208-510-61	RES,CHIP	10K	2%	1/8W
R315	1-208-510-61	RES,CHIP	10K	2%	1/8W
R316	1-208-462-61	RES,CHIP	10K	2%	1/10W
R317	1-208-449-61	RES,CHIP	3.3K	2%	1/10W
R318	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R319	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R320	1-216-238-00	RES,CHIP	47K	2%	1/8W
R321	1-216-238-00	RES,CHIP	47K	2%	1/8W
R324	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R325	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R326	1-208-449-61	RES,CHIP	3.3K	2%	1/10W
R327	1-208-437-61	RES,CHIP	1K	2%	1/10W
R328	1-249-955-11	CARBON	22K	5%	1/4W
R329	1-249-955-11	CARBON	22K	5%	1/4W
R330	1-208-534-61	RES,CHIP	100K	2%	1/10W
R331	1-208-534-61	RES,CHIP	100K	2%	1/10W
R332	1-211-960-11	RES,CHIP	22	2%	1/10W
R333	1-211-960-11	RES,CHIP	22	2%	1/10W
R334	1-208-437-61	RES,CHIP	1K	2%	1/10W
R335	1-208-437-61	RES,CHIP	1K	2%	1/10W
R336	1-208-437-61	RES,CHIP	1K	2%	1/10W
R337	1-208-437-61	RES,CHIP	1K	2%	1/10W
R338	1-242-799-11	METAL	0.06/0.06		5W F
R339	1-242-799-11	METAL	0.06/0.06		5W F
R340	1-242-799-11	METAL	0.06/0.06		5W F
R341	1-242-799-11	METAL	0.06/0.06		5W F
R343	1-208-789-11	RES,CHIP	2K	2%	1/10W
R345	1-208-789-11	RES,CHIP	2K	2%	1/10W
R346	1-208-462-61	RES,CHIP	10K	2%	1/10W
R347	1-208-462-61	RES,CHIP	10K	2%	1/10W
R348	1-208-462-61	RES,CHIP	10K	2%	1/10W
R349	1-208-462-61	RES,CHIP	10K	2%	1/10W
R350	1-208-462-61	RES,CHIP	10K	2%	1/10W
R351	1-208-462-61	RES,CHIP	10K	2%	1/10W
R352	1-208-550-61	RES,CHIP	470K	2%	1/10W
R353	1-217-784-11	FUSIBLE	10	5%	5W F
R354	1-249-935-11	CARBON	3.3K	5%	1/4W
R355	1-249-943-11	CARBON	6.8K	5%	1/4W
R356	1-249-576-11	CARBON	10K	5%	1/4W
R357	1-249-576-11	CARBON	10K	5%	1/4W

Ref. No.	Part No.	Description			Remark
R401	1-208-518-61	RES,CHIP	22K	2%	1/10W
R402	1-208-518-61	RES,CHIP	22K	2%	1/10W
R403	1-208-291-11	RES,CHIP	4.7M	5%	1/10W
R404	1-208-518-61	RES,CHIP	22K	2%	1/10W
R405	1-208-518-61	RES,CHIP	22K	2%	1/10W
R406	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R407	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R408	1-208-449-61	RES,CHIP	3.3K	2%	1/10W
R409	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R410	1-208-449-61	RES,CHIP	3.3K	2%	1/10W
R411	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R412	1-208-518-61	RES,CHIP	22K	2%	1/10W
R413	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R414	1-208-510-61	RES,CHIP	10K	2%	1/8W
R415	1-208-510-61	RES,CHIP	10K	2%	1/8W
R416	1-208-462-61	RES,CHIP	10K	2%	1/10W
R417	1-208-449-61	RES,CHIP	3.3K	2%	1/10W
R418	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R419	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R420	1-216-238-00	RES,CHIP	47K	2%	1/8W
R421	1-216-238-00	RES,CHIP	47K	2%	1/8W
R424	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R425	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R426	1-208-449-61	RES,CHIP	3.3K	2%	1/10W
R427	1-208-437-61	RES,CHIP	1K	2%	1/10W
R428	1-249-955-11	CARBON	22K	5%	1/4W
R429	1-249-955-11	CARBON	22K	5%	1/4W
R430	1-208-534-61	RES,CHIP	100K	2%	1/10W
R431	1-208-534-61	RES,CHIP	100K	2%	1/10W
R432	1-211-960-11	RES,CHIP	22	2%	1/10W
R433	1-211-960-11	RES,CHIP	22	2%	1/10W
R434	1-208-437-61	RES,CHIP	1K	2%	1/10W
R435	1-208-437-61	RES,CHIP	1K	2%	1/10W
R436	1-208-437-61	RES,CHIP	1K	2%	1/10W
R437	1-208-437-61	RES,CHIP	1K	2%	1/10W
R443	1-208-789-11	RES,CHIP	2K	2%	1/10W
R445	1-208-789-11	RES,CHIP	2K	2%	1/10W
R446	1-208-462-61	RES,CHIP	10K	2%	1/10W
R447	1-208-462-61	RES,CHIP	10K	2%	1/10W
R448	1-208-462-61	RES,CHIP	10K	2%	1/10W
R449	1-208-462-61	RES,CHIP	10K	2%	1/10W
R450	1-208-462-61	RES,CHIP	10K	2%	1/10W
R451	1-208-462-61	RES,CHIP	10K	2%	1/10W
R452	1-208-550-61	RES,CHIP	470K	2%	1/10W
R453	1-217-784-11	FUSIBLE	10	5%	5W F
R454	1-249-568-11	CARBON	4.7K	5%	1/4W
R455	1-249-943-11	CARBON	6.8K	5%	1/4W
R456	1-249-576-11	CARBON	10K	5%	1/4W
R457	1-249-576-11	CARBON	10K	5%	1/4W
R851	1-216-210-00	RES,CHIP	3.3K	2%	1/8W
R852	1-208-486-61	RES,CHIP	1K	2%	1/8W
R853	1-216-210-00	RES,CHIP	3.3K	2%	1/8W
R854	1-208-486-61	RES,CHIP	1K	2%	1/8W
R855	1-208-462-61	RES,CHIP	10K	2%	1/10W
R856	1-208-462-61	RES,CHIP	10K	2%	1/10W
R857	1-208-441-61	RES,CHIP	1.5K	2%	1/10W
R858	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R859	1-208-462-61	RES,CHIP	10K	2%	1/10W
R860	1-208-539-11	RES,CHIP	160K	2%	1/10W
R861	1-208-539-11	RES,CHIP	160K	2%	1/10W
R862	1-208-774-11	RES,CHIP	470	2%	1/10W
R863	1-208-518-61	RES,CHIP	22K	2%	1/10W
R864	1-208-526-61	RES,CHIP	47K	2%	1/10W
R866	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R867	1-208-437-61	RES,CHIP	1K	2%	1/10W
R868	1-208-437-61	RES,CHIP	1K	2%	1/10W
R870	1-208-462-61	RES,CHIP	10K	2%	1/10W
R871	1-208-462-61	RES,CHIP	10K	2%	1/10W
R872	1-208-462-61	RES,CHIP	10K	2%	1/10W
R873	1-208-462-61	RES,CHIP	10K	2%	1/10W
R874	1-216-121-91	RES,CHIP	1M	5%	1/10W
R875	1-208-462-61	RES,CHIP	10K	2%	1/10W
R876	1-208-462-61	RES,CHIP	10K	2%	1/10W
R877	1-216-121-00	RES,CHIP	1M	5%	1/10W
R878	1-216-603-11	METAL CHIP	10	0.5%	1/10W
R879	1-216-603-11	METAL CHIP	10	0.5%	1/10W
R880	1-216-603-11	METAL CHIP	10	0.5%	1/10W
R881	1-216-603-11	METAL CHIP	10	0.5%	1/10W
R882	1-216-121-00	RES,CHIP	1M	5%	1/10W
R883	1-208-462-61	RES,CHIP	10K	2%	1/10W
R884	1-208-462-61	RES,CHIP	10K	2%	1/10W
R885	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R886	1-216-665-11	METAL CHIP	3.9K	0.5%	1/10W
R887	1-216-665-11	METAL CHIP	3.9K	0.5%	1/10W
		< RELAY >			
RY801	1-755-353-11	RELAY			
RY802	1-755-353-11	RELAY			
		< SWITCH >			
S805	1-692-721-11	SWITCH, SLIDE (DIRECT/ON←→OFF)			
S806	1-692-721-11	SWITCH, SLIDE (DIRECT/ON←→OFF)			
S851	1-771-802-11	SWITCH (TEST TONE)			
		< TRANSFORMER >			
T851	1-435-149-11	TRANSFORMER, DC-DC CONVERTER			
		< THERMISTOR >			
TH851	1-809-664-51	THERMISTOR, POSITIVE			
		< VARIABLE RESISTOR >			
VR101	1-241-760-11	RES, ADJ, CERMET 470 (IDLING)			
VR201	1-241-760-11	RES, ADJ, CERMET 470 (IDLING)			
VR301	1-241-760-11	RES, ADJ, CERMET 470 (IDLING)			
VR401	1-241-760-11	RES, ADJ, CERMET 470 (IDLING)			
VR801	1-225-648-11	RES, VAR 5K/5K (LEVEL/MIN-MAX)			
VR802	1-225-648-11	RES, VAR 5K/5K (LEVEL/MIN-MAX)			
VR803	1-225-648-11	RES, VAR 5K/5K (LOW BOOST/0dB-+10dB)			
VR804	1-225-648-11	RES, VAR 5K/5K (LOW BOOST/0dB-+10dB)			

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FILTER | LED

Ref. No.	Part No.	Description			Remark
	1-675-246-11	FILTER (4CH) BOARD			
		**********			
		< CAPACITOR >			
C151	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C152	1-136-167-00	FILM	0.15uF	5%	50V
C153	1-136-155-00	FILM	0.015uF	5%	50V
C154	1-136-167-00	FILM	0.15uF	5%	50V
C155	1-136-155-00	FILM	0.015uF	5%	50V
C156	1-126-008-51	ELECT	47uF	20%	16V
C157	1-126-008-51	ELECT	47uF	20%	16V
C251	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C252	1-136-167-00	FILM	0.15uF	5%	50V
C253	1-136-155-00	FILM	0.015uF	5%	50V
C254	1-136-167-00	FILM	0.15uF	5%	50V
C255	1-136-155-00	FILM	0.015uF	5%	50V
C256	1-126-008-51	ELECT	47uF	20%	16V
C257	1-126-008-51	ELECT	47uF	20%	16V
C351	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C352	1-136-167-00	FILM	0.15uF	5%	50V
C353	1-136-155-00	FILM	0.015uF	5%	50V
C354	1-136-167-00	FILM	0.15uF	5%	50V
C355	1-136-155-00	FILM	0.015uF	5%	50V
C356	1-126-008-51	ELECT	47uF	20%	16V
C357	1-126-008-51	ELECT	47uF	20%	16V
C451	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C452	1-136-167-00	FILM	0.15uF	5%	50V
C453	1-136-155-00	FILM	0.015uF	5%	50V
C454	1-136-167-00	FILM	0.15uF	5%	50V
C455	1-136-155-00	FILM	0.015uF	5%	50V
C456	1-126-008-51	ELECT	47uF	20%	16V
C457	1-126-008-51	ELECT	47uF	20%	16V
C751	1-164-001-11	CERAMIC CHIP	0.1uF	10%	25V
C752	1-164-001-11	CERAMIC CHIP	0.1uF	10%	25V
C753	1-164-001-11	CERAMIC CHIP	0.1uF	10%	25V
C754	1-164-001-11	CERAMIC CHIP	0.1uF	10%	25V
		< JACK >			
CNJ808	1-784-916-11	CONNECTOR, BOARD TO BOARD 9P			
CNJ809	1-784-916-11	CONNECTOR, BOARD TO BOARD 9P			
		< IC >			
IC803	8-759-711-82	IC NJM4580E(T1)			
IC804	8-759-711-82	IC NJM4580E(T1)			
IC805	8-759-711-82	IC NJM4580E(T1)			
IC809	8-759-711-82	IC NJM4580E(T1)			
IC810	8-759-711-82	IC NJM4580E(T1)			
IC811	8-759-711-82	IC NJM4580E(T1)			
		< RESISTOR >			
R181	1-208-462-61	RES,CHIP	10K	2%	1/10W
R182	1-208-518-61	RES,CHIP	22K	2%	1/10W
R183	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R184	1-208-462-61	RES,CHIP	10K	2%	1/10W
R185	1-208-462-61	RES,CHIP	10K	2%	1/10W
R186	1-216-057-61	RES,CHIP	2.2K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R187	1-216-057-61	RES,CHIP	2.2K	5%	1/10W
R189	1-208-462-61	RES,CHIP	10K	2%	1/10W
R190	1-208-462-61	RES,CHIP	10K	2%	1/10W
R281	1-208-462-61	RES,CHIP	10K	2%	1/10W
R282	1-208-518-61	RES,CHIP	22K	2%	1/10W
R283	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R284	1-208-462-61	RES,CHIP	10K	2%	1/10W
R285	1-208-462-61	RES,CHIP	10K	2%	1/10W
R286	1-216-057-61	RES,CHIP	2.2K	5%	1/10W
R287	1-216-057-61	RES,CHIP	2.2K	5%	1/10W
R289	1-208-462-61	RES,CHIP	10K	2%	1/10W
R290	1-208-462-61	RES,CHIP	10K	2%	1/10W
R381	1-208-462-61	RES,CHIP	10K	2%	1/10W
R382	1-208-518-61	RES,CHIP	22K	2%	1/10W
R383	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R384	1-208-462-61	RES,CHIP	10K	2%	1/10W
R385	1-208-462-61	RES,CHIP	10K	2%	1/10W
R386	1-216-057-61	RES,CHIP	2.2K	5%	1/10W
R387	1-216-057-61	RES,CHIP	2.2K	5%	1/10W
R389	1-208-462-61	RES,CHIP	10K	2%	1/10W
R390	1-208-462-61	RES,CHIP	10K	2%	1/10W
R481	1-208-462-61	RES,CHIP	10K	2%	1/10W
R482	1-208-518-61	RES,CHIP	22K	2%	1/10W
R483	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R484	1-208-462-61	RES,CHIP	10K	2%	1/10W
R485	1-208-462-61	RES,CHIP	10K	2%	1/10W
R486	1-216-057-61	RES,CHIP	2.2K	5%	1/10W
R487	1-216-057-61	RES,CHIP	2.2K	5%	1/10W
R489	1-208-462-61	RES,CHIP	10K	2%	1/10W
R490	1-208-462-61	RES,CHIP	10K	2%	1/10W
		< SWITCH >			
S801	1-571-658-11	SWITCH, SLIDE (FILTER, X1/X10)			
S802	1-571-658-11	SWITCH, SLIDE (FILTER, X1/X10)			
S803	1-762-191-11	SWITCH, SLIDE (FILTER, LPF/OFF/HPF)			
S804	1-762-191-11	SWITCH, SLIDE (FILTER, LPF/OFF/HPF)			
		< VARIABLE RESISTOR >			
VR805	1-225-921-11	RES, VAR 20K/20K/20K/20K (FILTER/50Hz-400Hz)			
VR806	1-225-921-11	RES, VAR 20K/20K/20K/20K (FILTER/50Hz-400Hz)			

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*	1-675-245-11	LED (4CH) BOARD			
		**********			
		< DIODE >			
D801	8-719-076-62	DIODE GL-5ED60 (HI-VOLTAGE)			
D802	8-719-076-62	DIODE GL-5ED60 (HI-CURRENT)			
D803	8-719-076-62	DIODE GL-5ED60 (OFFSET)			
D804	8-719-076-62	DIODE GL-5ED60 (OVER CURRENT)			
D805	8-719-076-62	DIODE GL-5ED60 (THERMAL)			
		< TRANSISTOR >			
Q801	8-729-230-49	TRANSISTOR	2SC2712-Y		
Q802	8-729-230-49	TRANSISTOR	2SC2712-Y		

Ref. No.	Part No.	Description			Remark
Q803	8-729-230-49	TRANSISTOR	2SC2712-Y		
		< RESISTOR >			
R801	1-216-194-00	METAL CHIP	680	5%	1/8W
R802	1-216-194-00	METAL CHIP	680	5%	1/8W
R803	1-216-190-00	RES,CHIP	470	2%	1/8W
R804	1-216-190-00	RES,CHIP	470	2%	1/8W
R805	1-216-194-00	METAL CHIP	680	5%	1/8W
R806	1-216-194-00	METAL CHIP	680	5%	1/8W
R807	1-216-190-00	RES,CHIP	470	2%	1/8W
R808	1-216-190-00	RES,CHIP	470	2%	1/8W
R809	1-216-194-00	METAL CHIP	680	5%	1/8W
R810	1-216-194-00	METAL CHIP	680	5%	1/8W
R811	1-216-190-00	RES,CHIP	470	2%	1/8W
R812	1-216-190-00	RES,CHIP	470	2%	1/8W
R813	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R814	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R815	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
**********					
*	A-3317-933-A	POWER BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C801	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C802	1-126-006-11	ELECT	22uF	20%	16V
C803	1-126-006-11	ELECT	22uF	20%	16V
C804	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C805	1-107-715-11	ELECT	22uF	20%	16V
C806	1-126-006-11	ELECT	22uF	20%	16V
C902	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C904	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C905	1-126-009-81	ELECT	100uF	20%	16V
C906	1-126-006-11	ELECT	22uF	20%	16V
C907	1-124-993-11	ELECT	47uF	20%	10V
C908	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C909	1-107-715-11	ELECT	22uF	20%	16V
C910	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C911	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C913	1-131-731-11	ELECT	2200uF		16V
C914	1-131-731-11	ELECT	2200uF		16V
C915	1-131-731-11	ELECT	2200uF		16V
C916	1-131-731-11	ELECT	2200uF		16V
C917	1-104-829-11	ELECT	220uF	20%	35V
C918	1-104-829-11	ELECT	220uF	20%	35V
C919	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C921	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C922	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C923	1-126-009-81	ELECT	100uF	20%	16V
C924	1-126-006-11	ELECT	22uF	20%	16V
C925	1-124-993-11	ELECT	47uF	20%	10V
C926	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C927	1-107-715-11	ELECT	22uF	20%	16V
C928	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C929	1-131-731-11	ELECT	2200uF		16V
C930	1-131-731-11	ELECT	2200uF		16V
C931	1-131-731-11	ELECT	2200uF		16V
C932	1-131-731-11	ELECT	2200uF		16V

Ref. No.	Part No.	Description			Remark
C935	1-104-829-11	ELECT	220uF	20%	35V
C936	1-104-829-11	ELECT	220uF	20%	35V
C937	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C944	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C945	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
		< CONNECTOR >			
CN802	1-694-620-11	TERMINAL BOARD 3P (+12V, GND, +12V)			
		< JACK >			
CNJ801	1-793-279-11	CONNECTOR 1P (REMOTE)			
		< CONNECTOR >			
* CNP804	1-564-709-11	PIN, CONNECTOR (SMALL TYPE) 7P			
		< DIODE >			
D806	8-719-801-78	DIODE 1SS184-TE85L			
D807	8-719-801-78	DIODE 1SS184-TE85L			
D808	8-719-025-34	DIODE 02CZ6.8-TE85L			
D809	8-719-160-56	DIODE RD12FB2			
D901	8-719-025-50	DIODE 02CZ16-TE85L			
D902	8-719-043-82	DIODE 02CZ5.1Y-TE85L			
D903	8-719-160-90	DIODE RD36FB2			
D904	8-719-025-49	DIODE 02CZ15-TE85L			
D905	8-719-076-60	DIODE FCH20A15			
D906	8-719-076-61	DIODE FRH20A15			
D907	8-719-801-78	DIODE 1SS184-TE85L			
D908	8-719-801-78	DIODE 1SS184-TE85L			
D909	8-719-801-78	DIODE 1SS184-TE85L			
D910	8-719-160-90	DIODE RD36FB2			
D911	8-719-025-49	DIODE 02CZ15-TE85L			
D912	8-719-076-60	DIODE FCH20A15			
D913	8-719-076-61	DIODE FRH20A15			
		< FUSE >			
F901	1-576-256-11	FUSE (BLADE TYPE) (AUTO FUSE)(25A)			
F902	1-576-256-11	FUSE (BLADE TYPE) (AUTO FUSE)(25A)			
F903	1-576-256-11	FUSE (BLADE TYPE) (AUTO FUSE)(25A)			
F904	1-576-256-11	FUSE (BLADE TYPE) (AUTO FUSE)(25A)			
		< IC >			
IC813	8-719-156-72	PHOTO COUPLER PS2501-1-K			
IC901	8-719-156-72	PHOTO COUPLER PS2501-1-K			
IC902	8-759-144-88	IC uPC494GS-T1			
IC903	8-719-156-72	PHOTO COUPLER PS2501-1-K			
IC904	8-759-144-88	IC uPC494GS-T1			
		< COIL >			
L902	1-410-396-71	INDUCTOR	0.45uH		
L904	1-410-396-71	INDUCTOR	0.45uH		
		< PILOT LAMP >			
PL901	1-518-540-00	LAMP, PILOT			
		< TRANSISTOR >			
Q804	8-729-230-49	TRANSISTOR	2SC2712-Y		

POWER

Ref. No.	Part No.	Description			Remark
Q805	8-729-230-49	TRANSISTOR	2SC2712-Y		
Q806	8-729-230-49	TRANSISTOR	2SC2712-Y		
Q807	8-729-230-49	TRANSISTOR	2SC2712-Y		
Q808	8-729-216-21	TRANSISTOR	2SA1162-Y		
Q809	8-729-230-49	TRANSISTOR	2SC2712-Y		
Q810	8-729-216-21	TRANSISTOR	2SA1162-Y		
Q811	8-729-230-49	TRANSISTOR	2SC2712-Y		
Q812	8-729-216-21	TRANSISTOR	2SA1162-Y		
Q901	8-729-046-13	TRANSISTOR	2SB1243-QR-TV2		
Q902	8-729-216-21	TRANSISTOR	2SA1162-Y		
Q903	8-729-230-49	TRANSISTOR	2SC2712-Y		
Q904	8-729-230-49	TRANSISTOR	2SC2712-Y		
Q905	8-729-230-49	TRANSISTOR	2SC2712-Y		
Q906	8-729-230-49	TRANSISTOR	2SC2712-Y		
Q907	8-729-030-89	TRANSISTOR	2SA1680-TPE6		
Q908	8-729-030-89	TRANSISTOR	2SA1680-TPE6		
Q909	8-729-030-90	TRANSISTOR	2SC4408-TPE6		
Q910	8-729-030-90	TRANSISTOR	2SC4408-TPE6		
Q911	8-729-035-83	TRANSISTOR	MTP75N06HD		
Q912	8-729-035-83	TRANSISTOR	MTP75N06HD		
Q913	8-729-035-83	TRANSISTOR	MTP75N06HD		
Q914	8-729-035-83	TRANSISTOR	MTP75N06HD		
Q915	8-729-035-83	TRANSISTOR	MTP75N06HD		
Q916	8-729-035-83	TRANSISTOR	MTP75N06HD		
Q917	8-729-216-21	TRANSISTOR	2SA1162-Y		
Q918	8-729-230-49	TRANSISTOR	2SC2712-Y		
Q919	8-729-230-49	TRANSISTOR	2SC2712-Y		
Q920	8-729-030-89	TRANSISTOR	2SA1680-TPE6		
Q921	8-729-030-89	TRANSISTOR	2SA1680-TPE6		
Q922	8-729-030-90	TRANSISTOR	2SC4408-TPE6		
Q923	8-729-030-90	TRANSISTOR	2SC4408-TPE6		
Q924	8-729-035-83	TRANSISTOR	MTP75N06HD		
Q925	8-729-035-83	TRANSISTOR	MTP75N06HD		
Q926	8-729-035-83	TRANSISTOR	MTP75N06HD		
Q927	8-729-035-83	TRANSISTOR	MTP75N06HD		
Q928	8-729-035-83	TRANSISTOR	MTP75N06HD		
Q929	8-729-035-83	TRANSISTOR	MTP75N06HD		
		< RESISTOR >			
R816	1-216-190-00	RES,CHIP	470	2%	1/8W
R817	1-216-190-00	RES,CHIP	470	2%	1/8W
R818	1-216-190-00	RES,CHIP	470	2%	1/8W
R819	1-216-190-00	RES,CHIP	470	2%	1/8W
R820	1-208-462-61	RES,CHIP	10K	2%	1/10W
R821	1-208-462-61	RES,CHIP	10K	2%	1/10W
R822	1-208-462-61	RES,CHIP	10K	2%	1/10W
R823	1-208-462-61	RES,CHIP	10K	2%	1/10W
R824	1-208-462-61	RES,CHIP	10K	2%	1/10W
R825	1-208-462-61	RES,CHIP	10K	2%	1/10W
R826	1-216-210-00	RES,CHIP	3.3K	2%	1/8W
R827	1-208-462-61	RES,CHIP	10K	2%	1/10W
R828	1-208-462-61	RES,CHIP	10K	2%	1/10W
R829	1-216-210-00	RES,CHIP	3.3K	2%	1/8W
R830	1-208-462-61	RES,CHIP	10K	2%	1/10W
R831	1-208-462-61	RES,CHIP	10K	2%	1/10W
R832	1-208-526-61	RES,CHIP	47K	2%	1/10W
R833	1-216-210-00	RES,CHIP	3.3K	2%	1/8W
R834	1-216-234-00	RES,CHIP	33K	2%	1/8W

Ref. No.	Part No.	Description			Remark
R835	1-216-698-11	METAL CHIP	91K	0.5%	1/10W
R836	1-208-437-61	RES,CHIP	1K	2%	1/10W
R837	1-208-510-61	RES,CHIP	10K	2%	1/8W
R838	1-249-405-11	CARBON	100	5%	1/4W
R901	1-249-576-11	CARBON	10K	5%	1/4W
R902	1-208-474-61	RES,CHIP	330	2%	1/8W
R903	1-216-210-00	RES,CHIP	3.3K	2%	1/8W
R904	1-208-486-61	RES,CHIP	1K	2%	1/8W
R905	1-216-214-00	RES,CHIP	4.7K	2%	1/8W
R906	1-208-441-61	RES,CHIP	1.5K	2%	1/10W
R907	1-249-568-11	CARBON	4.7K	5%	1/4W
R909	1-216-429-11	RES,CHIP	470	2%	1/10W
R910	1-218-760-11	RES,CHIP	220K	2%	1/10W
R911	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R912	1-208-462-61	RES,CHIP	10K	2%	1/10W
R913	1-208-462-61	RES,CHIP	10K	2%	1/10W
R914	1-208-466-61	RES,CHIP	15K	2%	1/10W
R915	1-216-677-11	METAL CHIP	12K	0.5%	1/10W
R916	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R917	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R918	1-208-437-61	RES,CHIP	1K	2%	1/10W
R919	1-208-437-61	RES,CHIP	1K	2%	1/10W
R920	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R921	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R922	1-215-886-11	METAL OXIDE	100	5%	2W F
R923	1-215-886-11	METAL OXIDE	100	5%	2W F
R924	1-208-437-61	RES,CHIP	1K	2%	1/10W
R925	1-208-437-61	RES,CHIP	1K	2%	1/10W
R926	1-208-397-61	RES,CHIP	22	2%	1/8W
R927	1-208-437-61	RES,CHIP	1K	2%	1/10W
R928	1-208-437-61	RES,CHIP	1K	2%	1/10W
R929	1-208-397-61	RES,CHIP	22	2%	1/8W
R930	1-259-033-51	CARBON	1	5%	1/4W
R931	1-259-033-51	CARBON	1	5%	1/4W
R932	1-259-033-51	CARBON	1	5%	1/4W
R933	1-259-033-51	CARBON	1	5%	1/4W
R934	1-259-033-51	CARBON	1	5%	1/4W
R935	1-259-033-51	CARBON	1	5%	1/4W
R936	1-208-462-61	RES,CHIP	10K	2%	1/10W
R937	1-208-462-61	RES,CHIP	10K	2%	1/10W
R938	1-208-550-61	RES,CHIP	470K	2%	1/10W
R939	1-208-462-61	RES,CHIP	10K	2%	1/10W
R940	1-208-526-61	RES,CHIP	47K	2%	1/10W
R941	1-208-441-61	RES,CHIP	1.5K	2%	1/10W
R942	1-216-429-61	RES,CHIP	470	2%	1/10W
R943	1-216-210-61	RES,CHIP	3.3K	2%	1/10W
R944	1-208-534-61	RES,CHIP	100K	2%	1/10W
R945	1-218-760-11	RES,CHIP	220K	2%	1/10W
R946	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R947	1-208-462-61	RES,CHIP	10K	2%	1/10W
R948	1-208-462-61	RES,CHIP	10K	2%	1/10W
R949	1-208-466-61	RES,CHIP	15K	2%	1/10W
R950	1-216-677-11	METAL CHIP	12K	0.5%	1/10W
R951	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R952	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R953	1-208-437-61	RES,CHIP	1K	2%	1/10W
R954	1-208-437-61	RES,CHIP	1K	2%	1/10W

Ref. No.	Part No.	Description			Remark
R955	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R956	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R957	1-215-886-11	METAL OXIDE	100	5%	2W F
R958	1-215-886-11	METAL OXIDE	100	5%	2W F
R959	1-208-437-61	RES,CHIP	1K	2%	1/10W
R960	1-208-437-61	RES,CHIP	1K	2%	1/10W
R961	1-208-397-61	RES,CHIP	22	2%	1/8W
R962	1-208-437-61	RES,CHIP	1K	2%	1/10W
R963	1-208-437-61	RES,CHIP	1K	2%	1/10W
R964	1-208-397-61	RES,CHIP	22	2%	1/8W
R965	1-259-033-51	CARBON	1	5%	1/4W
R966	1-259-033-51	CARBON	1	5%	1/4W
R967	1-259-033-51	CARBON	1	5%	1/4W
R968	1-259-033-51	CARBON	1	5%	1/4W
R969	1-259-033-51	CARBON	1	5%	1/4W
R970	1-259-033-51	CARBON	1	5%	1/4W
		< SWITCH >			
S801	1-571-658-11	SWITCH, SLIDE (MODE, HI-C/HI-V)			
S802	1-692-721-11	SWITCH, SLIDE (NFB, ON/OFF)			
		< TRANSFORMER >			
T901	1-435-148-11	TRANSFORMER, DC-DC CONVERTER			
T902	1-435-148-11	TRANSFORMER, DC-DC CONVERTER			
		< THERMISTOR >			
TH901	1-810-506-11	THERMISTOR NTH5G39B223K01			
TH902	1-810-506-11	THERMISTOR NTH5G39B223K01			
TH903	1-810-506-11	THERMISTOR NTH5G39B223K01			
TH904	1-810-506-11	THERMISTOR NTH5G39B223K01			
TH905	1-810-506-11	THERMISTOR NTH5G39B223K01			

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MISCELLANEOUS
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F901	1-576-256-11	FUSE (BLADE TYPE) (AUTO FUSE) (25A)
F902	1-576-256-11	FUSE (BLADE TYPE) (AUTO FUSE) (25A)
F903	1-576-256-11	FUSE (BLADE TYPE) (AUTO FUSE) (25A)
F904	1-576-256-11	FUSE (BLADE TYPE) (AUTO FUSE) (25A)
FN801	1-763-107-11	MOTOR, FAN

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Ref. No.	Part No.	Description	Remark
		ACCESSORIES	
		************	
	3-867-641-11	MANUAL, INSTRUCTION (ENGLISH,FRENCH)	
	3-867-641-21	MANUAL, INSTRUCTION (GERMAN,ITALIAN)(AEP,UK,E)	
	3-867-641-31	MANUAL, INSTRUCTION (SPANISH,PORTUGUESE)(AEP,UK,E)	
	3-867-641-41	MANUAL, INSTRUCTION (DUTCH,SWEDISH)(AEP,UK,E)	
	3-867-641-51	MANUAL, INSTRUCTION (RUSSIAN)(AEP,UK,E)	

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HARDWARE LIST
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#1	7-685-546-19	SCREW (+BTP3X8) TYPE2 N-S
#2	7-685-548-19	SCREW (+BTP3X12) TYPE2 N-S
#3	7-685-145-19	SCREW (+P3X6) TYPE2 NON-SLIT
#4	7-685-147-11	SCREW (+P3X10) TYPE2 NON-SLIT
#5	7-685-146-19	SCREW (+P3X8) TYPE2 NON-SLIT
#6	7-685-647-79	SCREW (+BVTP3X10) TYPE2 IT-3
#7	7-685-106-11	SCREW (+P2X10) TYPE2 NON-SLIT
#8	7-685-649-79	SCREW (+BVTP3X14) TYPE2 IT-3
#9	7-685-168-11	SCREW (+P4X40) TYPE2 NON-SLIT
#10	7-685-149-11	SCREW (+P3X14) TYPE2 NON-SLIT
#11	7-685-797-01	SCREW +PTT2.6X16 (S)

9-926-591-11

Sony Corporation
Mobile Electronics Company

99F09278-1
Printed in Japan © 1999. 6
Published by Quality Assurance Dept.

XM-7547

SONY

SERVICE MANUAL

US Model
Canadian Model
AEP Mode
UK Model
E Model

SUPPLEMENT-1

File this supplement with the service manual.

Subject: 1. CHANGE OF DISASSEMBLY
2. CHANGE OF EXPLODED VIEWS
3. CHANGE OF ELECTRICAL PARTS LIST
4. CHANGE OF DIAGRAMS

(ENG-99012)

The Amplifier Board and the Power Board were changed during production of this machine.
Here, only the printed circuit boards prior to the change are described.

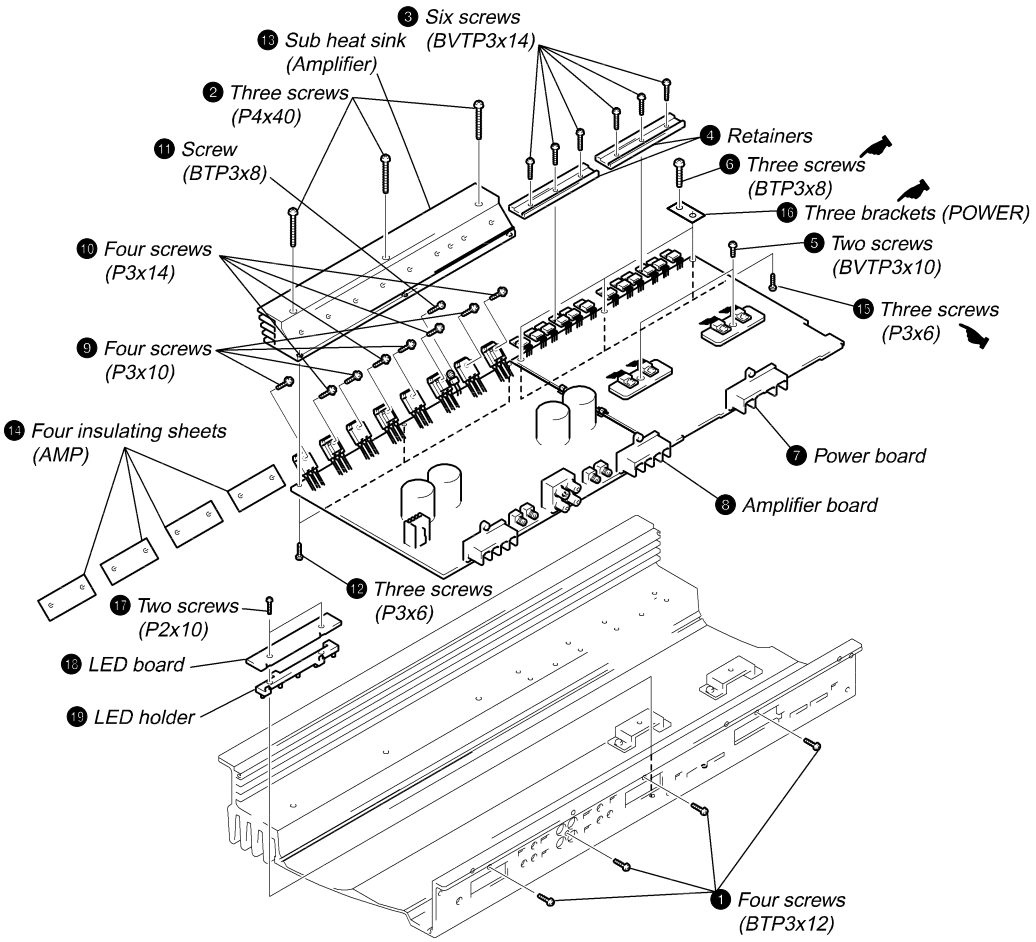
9-926-591-83

Sony Corporation
Mobile Electronics Division Company

99J090275-1
Printed in Japan © 1999. 10
Published by General Engineering Dept.

1. CHANGE OF DISASSEMBLY

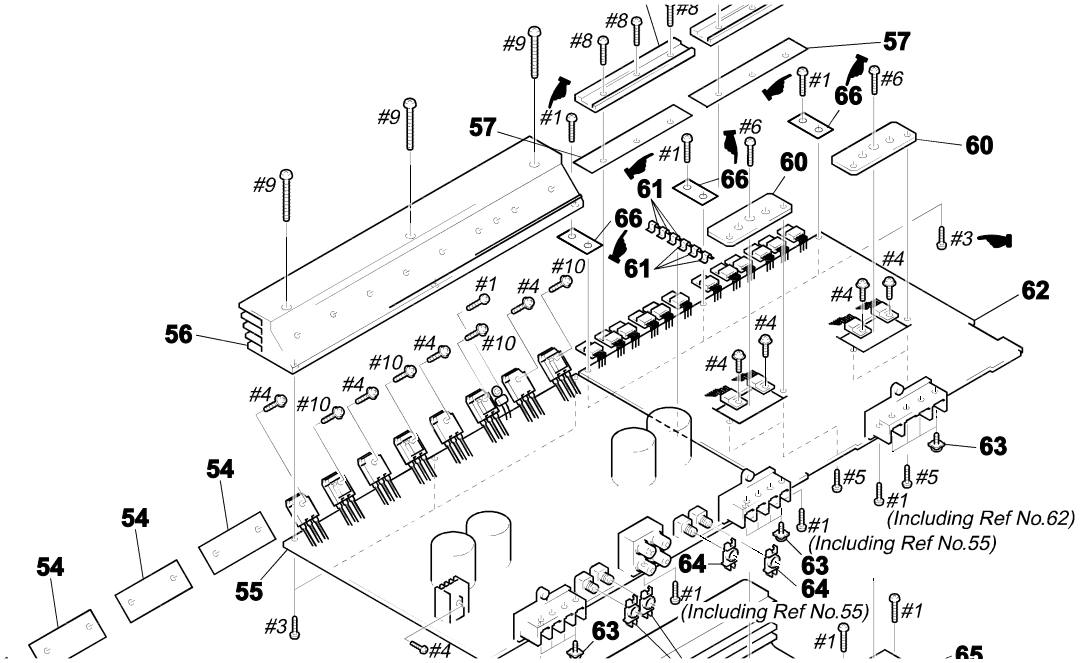
☛ : Changed portion

Page	3-2. AMPLIFIER/POWER BOARD AND LED BOARD
7	

2. CHANGE OF EXPLODED VIEWS

☛ : Changed portion

Page	Former Type				New Type			
	Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
17	* 2	3-039-205-01	HEAT SINK (COVER)		* 2	3-039-205-01	HEAT SINK (COVER)	(US, CND)
					* 2	3-039-205-11	HEAT SINK (COVER)	(AEP, UK, E)
18					* 66	3-042-419-01	BRACKET (POWER)	



NOTE:

• Abbreviation

CND: Canadian model

3. CHANGE OF ELECTRICAL PARTS LIST

☛ : Changed portion

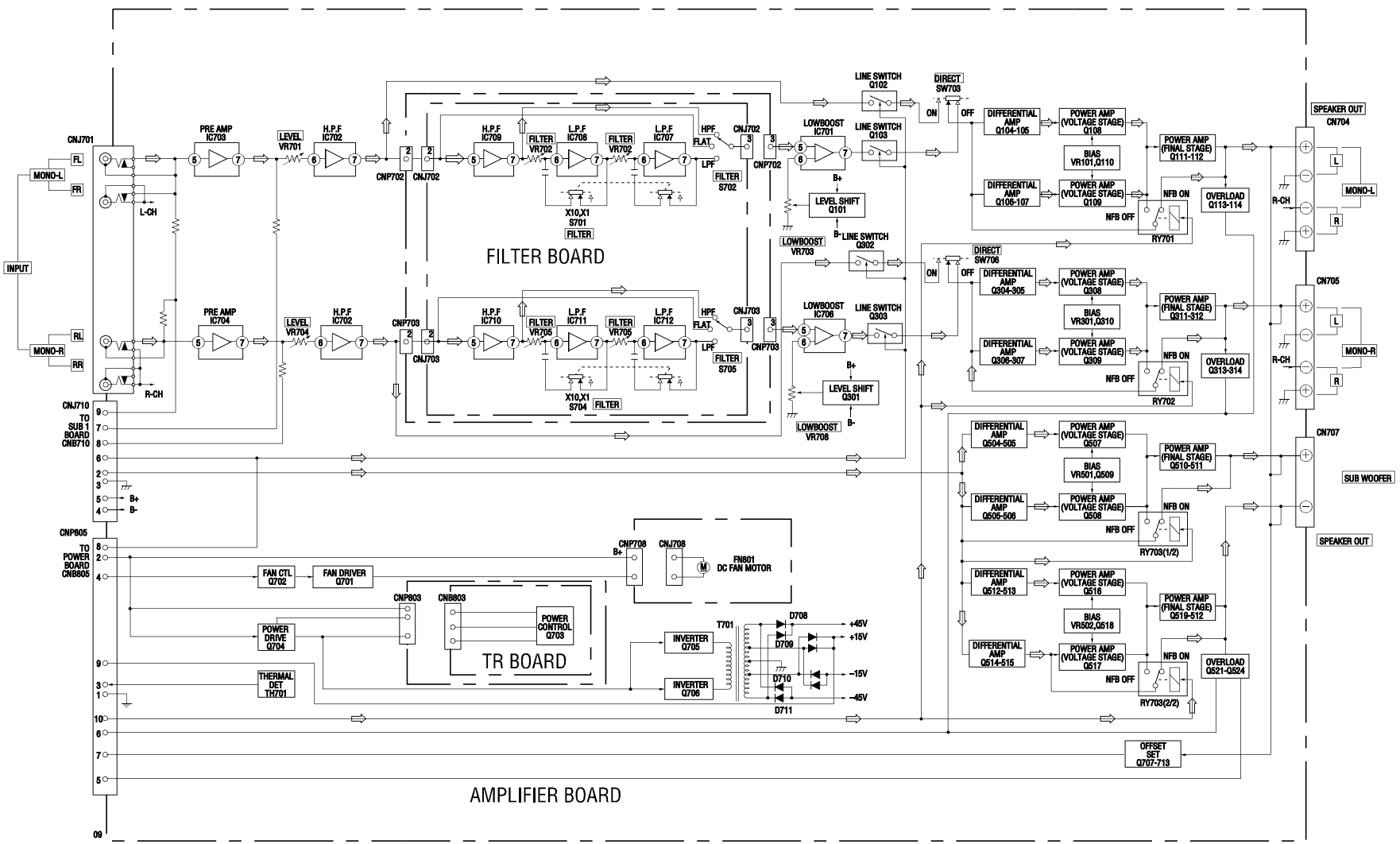
Page	Former Type						New Type					
	Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
19	C112	1-102-508-11	CERAMIC	10PF	0.5PF	50V	C112	1-102-959-11	CERAMIC	22PF	5%	50V
	C212	1-102-508-11	CERAMIC	10PF	0.5PF	50V	C212	1-102-959-11	CERAMIC	22PF	5%	50V
	C312	1-102-508-11	CERAMIC	10PF	0.5PF	50V	C312	1-102-959-11	CERAMIC	22PF	5%	50V
	C412	1-102-508-11	CERAMIC	10PF	0.5PF	50V	C412	1-102-959-11	CERAMIC	22PF	5%	50V
20	D103	8-719-820-05	DIODE	1SS181-TE85R			D103	8-719-820-05	DIODE	1SS181-TE85R (AEP,UK,E)		
	D105	8-719-100-65	DIODE	RD12EB2			D105	8-719-100-65	DIODE	RD12EB2 (AEP,UK,E)		
			————				D107	8-719-921-71	DIODE	MTZJ-9.1B		
	D203	8-719-820-05	DIODE	1SS181-TE85R			D203	8-719-820-05	DIODE	1SS181-TE85R (AEP,UK,E)		
	D205	8-719-100-65	DIODE	RD12EB2			D205	8-719-100-65	DIODE	RD12EB2 (AEP,UK,E)		
			————				D207	8-719-921-71	DIODE	MTZJ-9.1B		
			————				D307	8-719-921-71	DIODE	MTZJ-9.1B		
			————				D407	8-719-921-71	DIODE	MTZJ-9.1B		
21	Q113	8-729-216-21	TRANSISTOR	2SA1162-Y			Q113	8-729-216-21	TRANSISTOR	2SA1162-Y (AEP,UK,E)		
	Q115	8-729-230-51	TRANSISTOR	2SC2712YG-TE85R			Q115	8-729-230-51	TRANSISTOR	2SC2712YG-TE85R (AEP,UK,E)		
	Q213	8-729-216-21	TRANSISTOR	2SA1162-Y			Q213	8-729-216-21	TRANSISTOR	2SA1162-Y (AEP,UK,E)		
	Q215	8-729-230-51	TRANSISTOR	2SC2712YG-TE85R			Q215	8-729-230-51	TRANSISTOR	2SC2712YG-TE85R (AEP,UK,E)		
	R134	1-208-437-61	RES, CHIP	1K	2%	1/10W	R134	1-208-437-61	RES, CHIP	1K	2%	1/10W (AEP,UK,E)
	R136	1-208-437-61	RES, CHIP	1K	2%	1/10W	R136	1-208-437-61	RES, CHIP	1K	2%	1/10W (AEP,UK,E)
	R143	1-208-789-11	RES, CHIP	2K	2%	1/10W	R143	1-208-789-11	RES, CHIP	2K	2%	1/10W (AEP,UK,E)
	R145	1-208-789-11	RES, CHIP	2K	2%	1/10W	R145	1-208-789-11	RES, CHIP	2K	2%	1/10W (AEP,UK,E)
	R146	1-208-462-61	RES, CHIP	10K	2%	1/10W	R146	1-208-462-61	RES, CHIP	10K	2%	1/10W (AEP,UK,E)
	R147	1-208-462-61	RES, CHIP	10K	2%	1/10W	R147	1-208-462-61	RES, CHIP	10K	2%	1/10W (AEP,UK,E)

Page	Former Type							New Type						
	Ref. No.	Part No.	Description			Remark		Ref. No.	Part No.	Description			Remark	
22	R150	1-208-462-61	RES, CHIP	10K	2%	1/10W		R150	1-208-462-61	RES, CHIP	10K	2%	1/10W (AEP,UK,E)	
	R153	1-217-784-11	FUSIBLE	10	5%	5F	F	R153	1-215-860-71	METAL OXIDE	33	5%	1W	F
			————					R158	1-215-860-71	METAL OXIDE	33	5%	1W	F
			————					R159	1-215-860-71	METAL OXIDE	33	5%	1W	F
	R234	1-208-437-61	RES, CHIP	1K	2%	1/10W		R234	1-208-437-61	RES, CHIP	1K	2%	1/10W (AEP,UK,E)	
	R236	1-208-437-61	RES, CHIP	1K	2%	1/10W		R236	1-208-437-61	RES, CHIP	1K	2%	1/10W (AEP,UK,E)	
	R243	1-208-789-11	RES, CHIP	2K	2%	1/10W		R243	1-208-789-11	RES, CHIP	2K	2%	1/10W (AEP,UK,E)	
	R245	1-208-789-11	RES, CHIP	2K	2%	1/10W		R245	1-208-789-11	RES, CHIP	2K	2%	1/10W (AEP,UK,E)	
	R246	1-208-462-61	RES, CHIP	10K	2%	1/10W		R246	1-208-462-61	RES, CHIP	10K	2%	1/10W (AEP,UK,E)	
	R247	1-208 462-61	RES, CHIP	10K	2%	1/10W		R247	1-208-462-61	RES, CHIP	10K	2%	1/10W (AEP,UK,E)	
	R250	1-208 462-61	RES, CHIP	10K	2%	1/10W		R250	1-208-462-61	RES, CHIP	10K	2%	1/10W (AEP,UK,E)	
	R253	1-217-784-11	FUSIBLE	10	5%	5W	F	R253	1-215-860-71	METAL OXIDE	33	5%	1W	F
			————					R258	1-215-860-71	METAL OXIDE	33	5%	1W	F
			————					R259	1-215-860-71	METAL OXIDE	33	5%	1W	F
	R353	1-217-784-11	FUSIBLE	10	5%	5W	F	R353	1-215-860-71	METAL OXIDE	33	5%	1W	F
			————					R358	1-215-860-71	METAL OXIDE	33	5%	1W	F
			————					R359	1-215-860-71	METAL OXIDE	33	5%	1W	F
23	R453	1-217-784-11	FUSIBLE	10	5%	5W	F	R453	1-215-860-71	METAL OXIDE	33	5%	1W	F
			————					R458	1-215-860-71	METAL OXIDE	33	5%	1W	F
			————					R459	1-215-860-71	METAL OXIDE	33	5%	1W	F
25			————					C912	1-131-994-11	FILM	0.047uF	5%	100V	
			————					C933	1-131-994-11	FILM	0.047uF	5%	100V	
27		3-867-641-11	MANUAL, INSTRUCTION (ENGLISH,FRENCH)						3-867-641-11	MANUAL, INSTRUCTION (ENGLISH,FRENCH)				(US,CND)
			————						3-867-641-61	MANUAL, INSTRUCTION (ENGLISH,FRENCH)				(AEP,UK,E)

Note:
• Abbreviation
CND: Canadian model

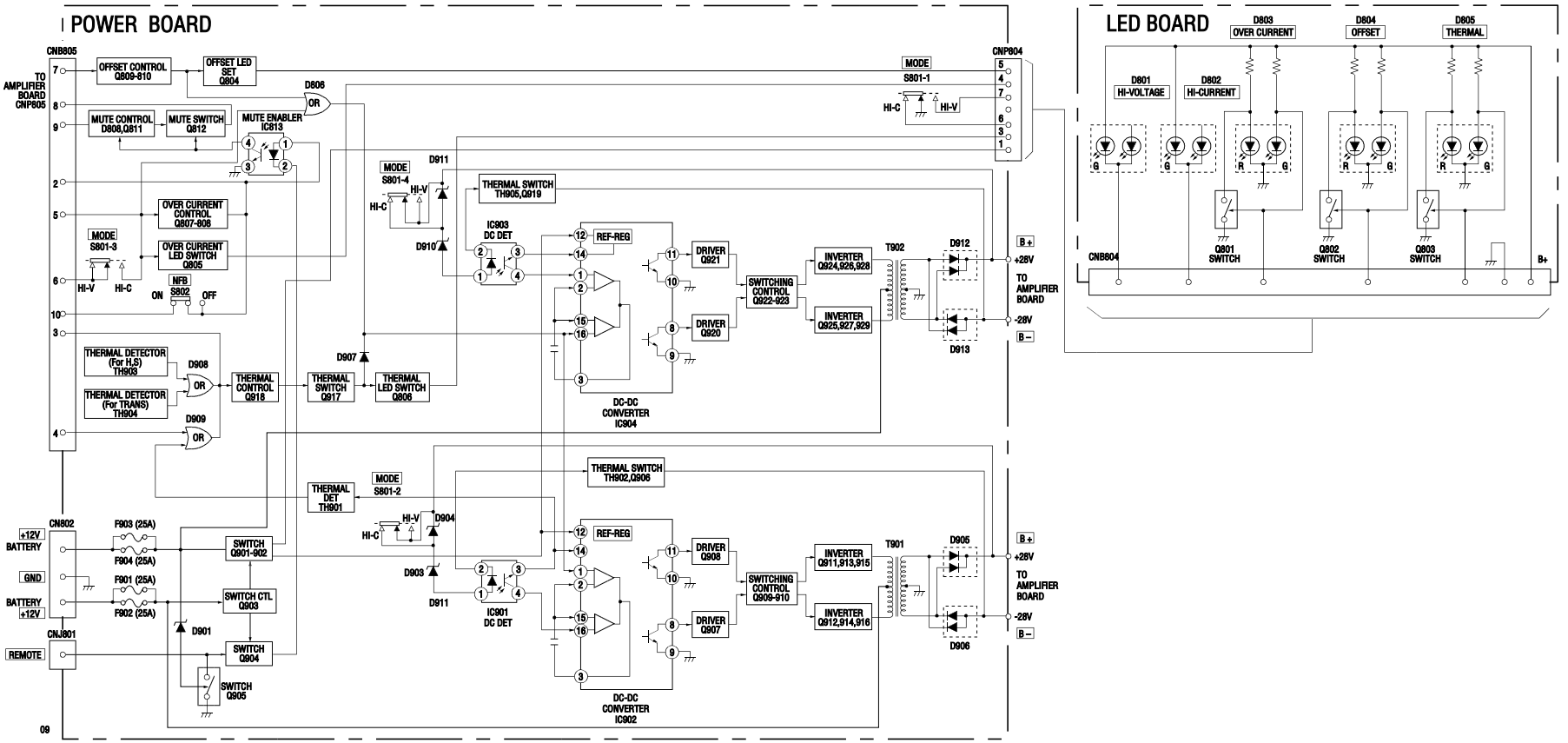
4. CHANGE OF DIAGRAMS

• BLOCK DIAGRAM – AMPLIFIER SECTION –

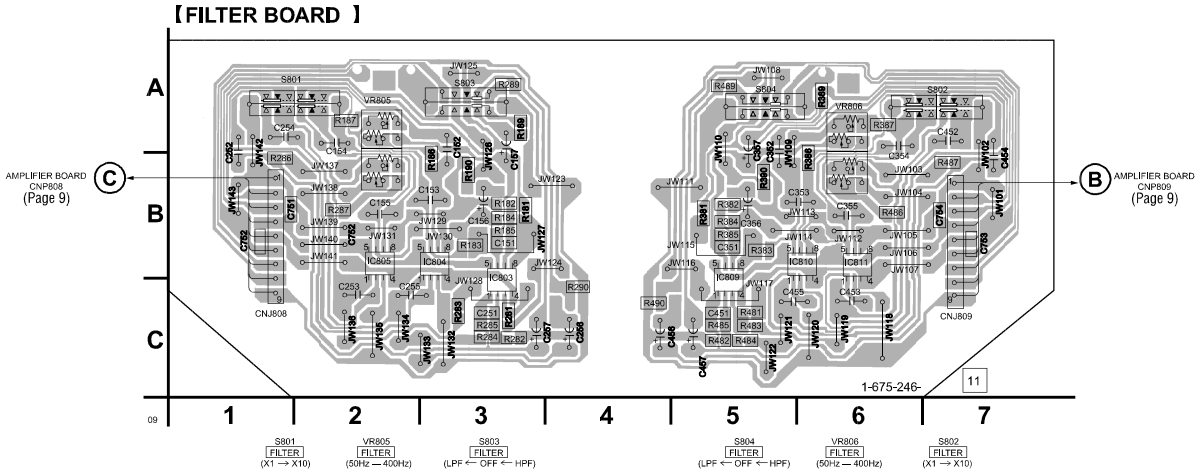


• Signal path
⇨ : Audio

• BLOCK DIAGRAM – POWER SECTION –

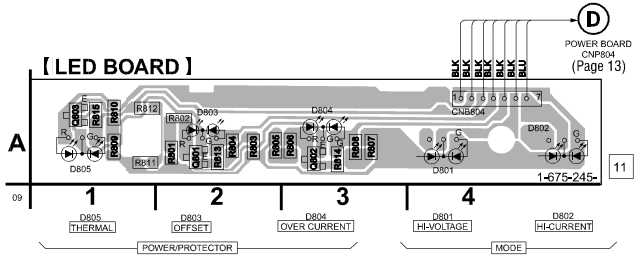


• **PRINTED WIRING BOARD – LED/FILTER SECTION –**



• **Semiconductor Location**

Ref. No.	Location
IC803	C-3
IC804	B-3
IC805	B-2
IC809	C-5
IC810	B-6
IC811	B-6



• **Semiconductor Location**

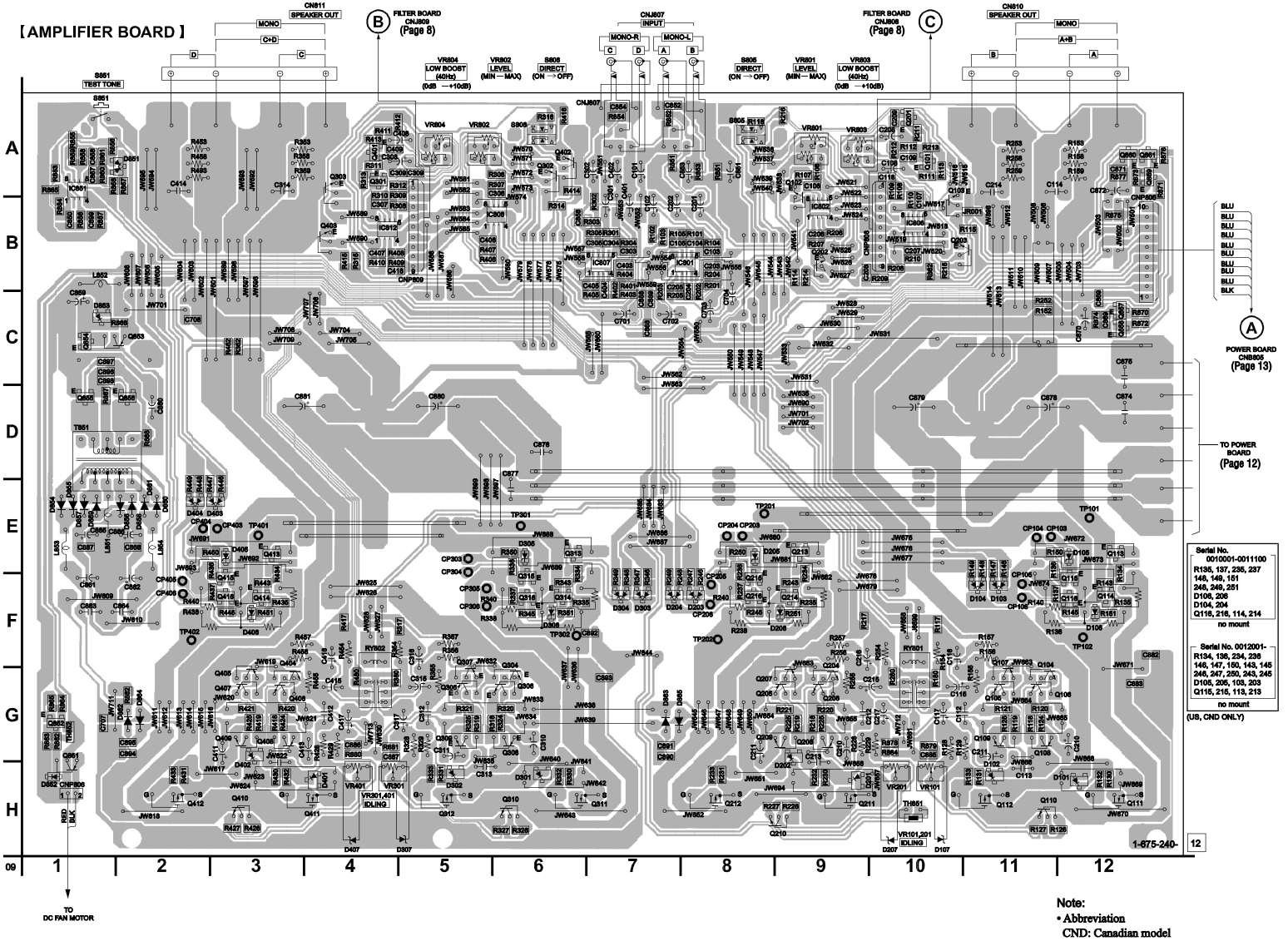
Ref. No.	Location
D801	A-4
D802	A-4
D803	A-2
D804	A-3
D805	A-1
Q801	A-2
Q802	A-3
Q803	A-1

• PRINTED WIRING BOARD – AMPLIFIER SECTION –

• Semiconductor Location

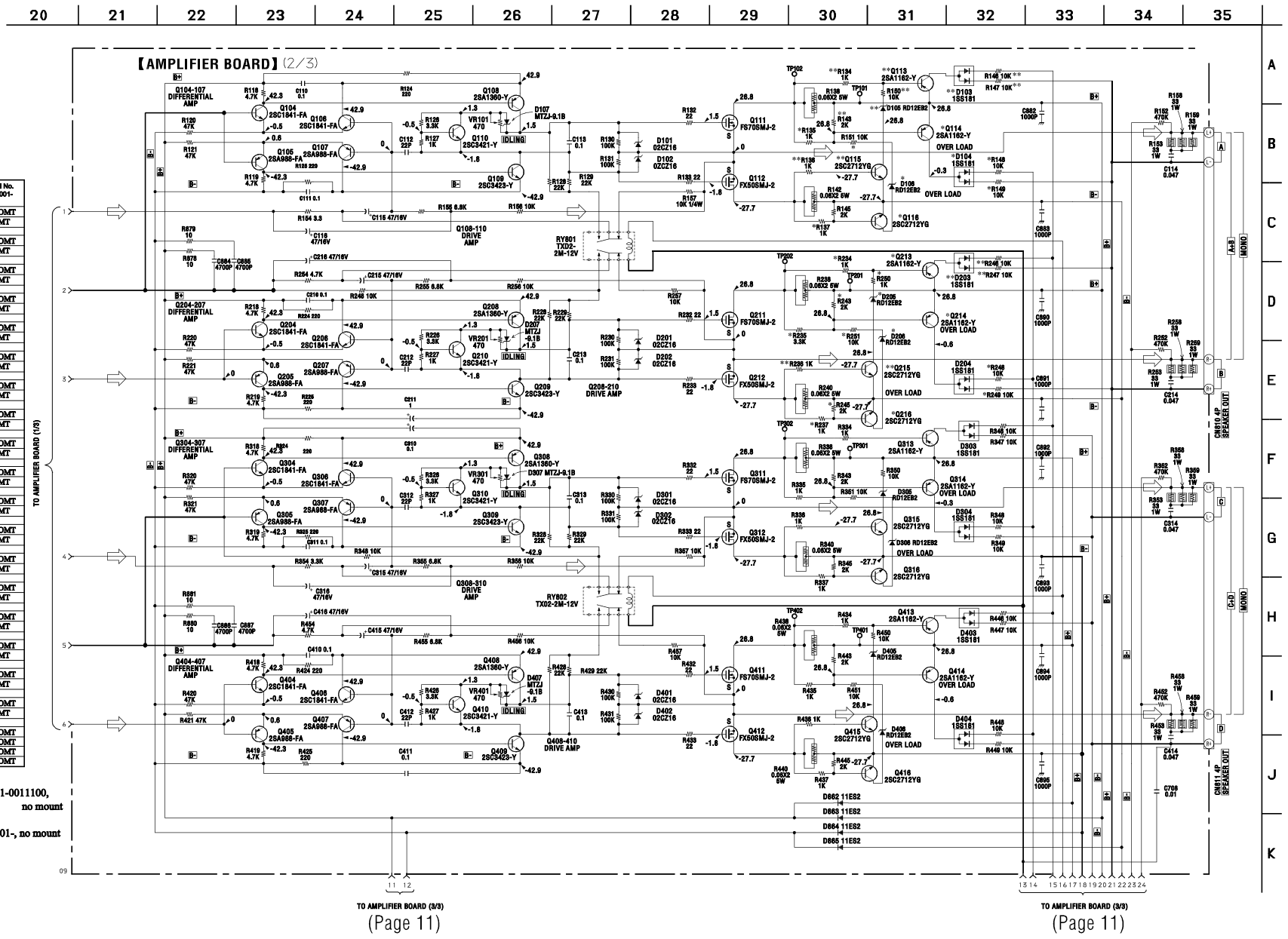
Ref. No.	Location	Ref. No.	Location
D101	H-12	Q113	E-12
D102	H-11	Q114	F-12
D103	F-11	Q115	E-12
D104	F-11	Q116	F-12
D105	E-12	Q201	A-10
D106	F-12	Q202	B-9
D107	H-10	Q203	B-11
D201	H-9	Q204	G-9
D202	G-9	Q205	G-9
D203	F-8	Q206	G-9
D204	F-7	Q207	G-9
D205	E-8	Q208	G-9
D206	F-8	Q209	G-9
D207	H-10	Q210	H-8
D301	H-6	Q211	H-9
D302	H-5	Q212	H-8
D303	F-7	Q213	E-9
D304	F-7	Q214	F-9
D305	E-6	Q215	E-8
D306	F-6	Q216	F-8
D307	H-4	Q301	A-4
D401	H-4	Q302	A-6
D402	G-3	Q303	A-4
D403	E-3	Q304	G-6
D404	E-2	Q305	G-5
D405	E-3	Q306	G-6
D406	F-3	Q307	G-5
D407	H-4	Q308	G-6
D851	A-2	Q309	G-5
D852	H-1	Q310	H-6
D853	C-1	Q311	H-6
D854	E-1	Q312	H-5
D855	E-1	Q313	E-6
D856	E-2	Q314	F-6
D857	E-1	Q315	E-6
D858	E-2	Q316	F-6
D859	E-1	Q401	A-4
D860	E-2	Q402	A-6
D861	E-2	Q403	B-4
D862	G-2	Q404	G-3
D863	G-7	Q405	G-3
D864	G-2	Q406	G-3
D865	G-7	Q407	G-3
		Q408	G-3
IC801	B-8	Q409	G-3
IC802	B-9	Q410	H-3
IC806	B-10	Q411	H-3
IC807	B-7	Q412	H-2
IC808	B-6	Q413	E-3
IC812	B-4	Q414	F-3
IC851	A-1	Q415	E-3
		Q416	F-3
Q101	A-10	Q851	H-1
Q102	A-9	Q852	G-1
Q103	A-10	Q853	C-2
Q104	G-11	Q854	C-1
Q105	G-11	Q855	D-1
Q106	G-11	Q856	D-2
Q107	G-11	Q857	C-12
Q108	G-11	Q858	C-12
Q109	G-11	Q859	A-12
Q110	H-11	Q860	A-12
Q111	H-12	Q861	A-12
Q112	H-11		

【AMPLIFIER BOARD】



Note:
• Abbreviation
CND: Canadian model

• SCHEMATIC DIAGRAM – AMPLIFIER (2/3) SECTION –

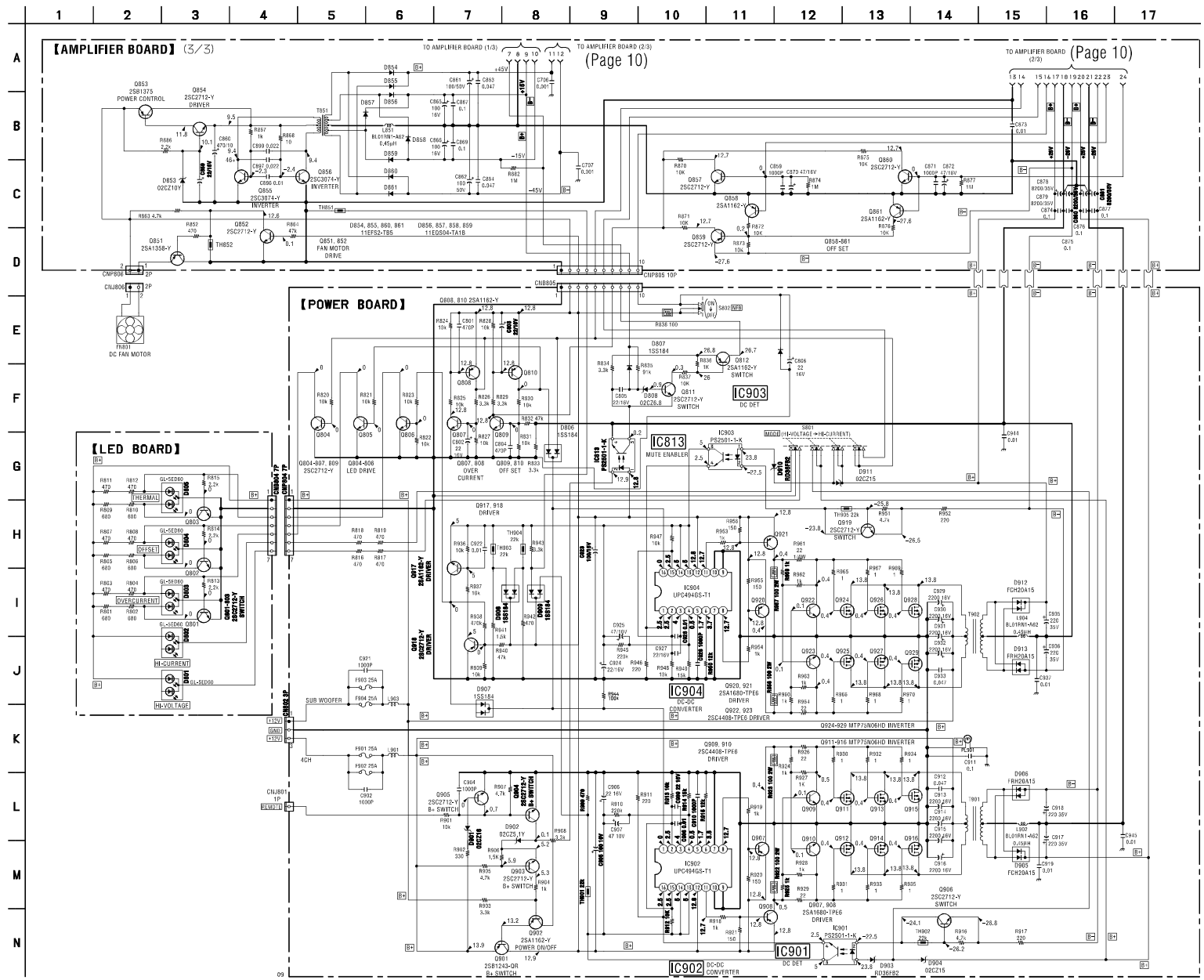


	Serial No. 001001-0011100	Serial No. 0012001-
D105	MT	NOMT
D106	NOMT	MT
D205	MT	NOMT
D206	NOMT	MT
D103	MT	NOMT
D104	MOMT	MT
D203	MT	NOMT
D204	NOMT	MT
Q115	MT	NOMT
Q116	NOMT	MT
Q215	MT	NOMT
Q216	NOMT	MT
Q113	MT	NOMT
Q114	NOMT	MT
Q213	MT	NOMT
Q214	NOMT	MT
R134	MT	NOMT
R135	NOMT	MT
R136	MT	NOMT
R137	NOMT	MT
R234	MT	NOMT
R235	NOMT	MT
R236	MT	NOMT
R237	NOMT	MT
R150	MT	NOMT
R151	NOMT	MT
R146	MT	NOMT
R148	NOMT	MT
R147	MT	NOMT
R149	NOMT	MT
R250	MT	NOMT
R251	NOMT	MT
R246	MT	NOMT
R248	NOMT	MT
R247	MT	NOMT
R247	NOMT	MT
R143	MT	NOMT
R145	MT	NOMT
R243	MT	NOMT
R245	MT	NOMT

NOTE:
* : Serial No. 001001-0011100, no mount

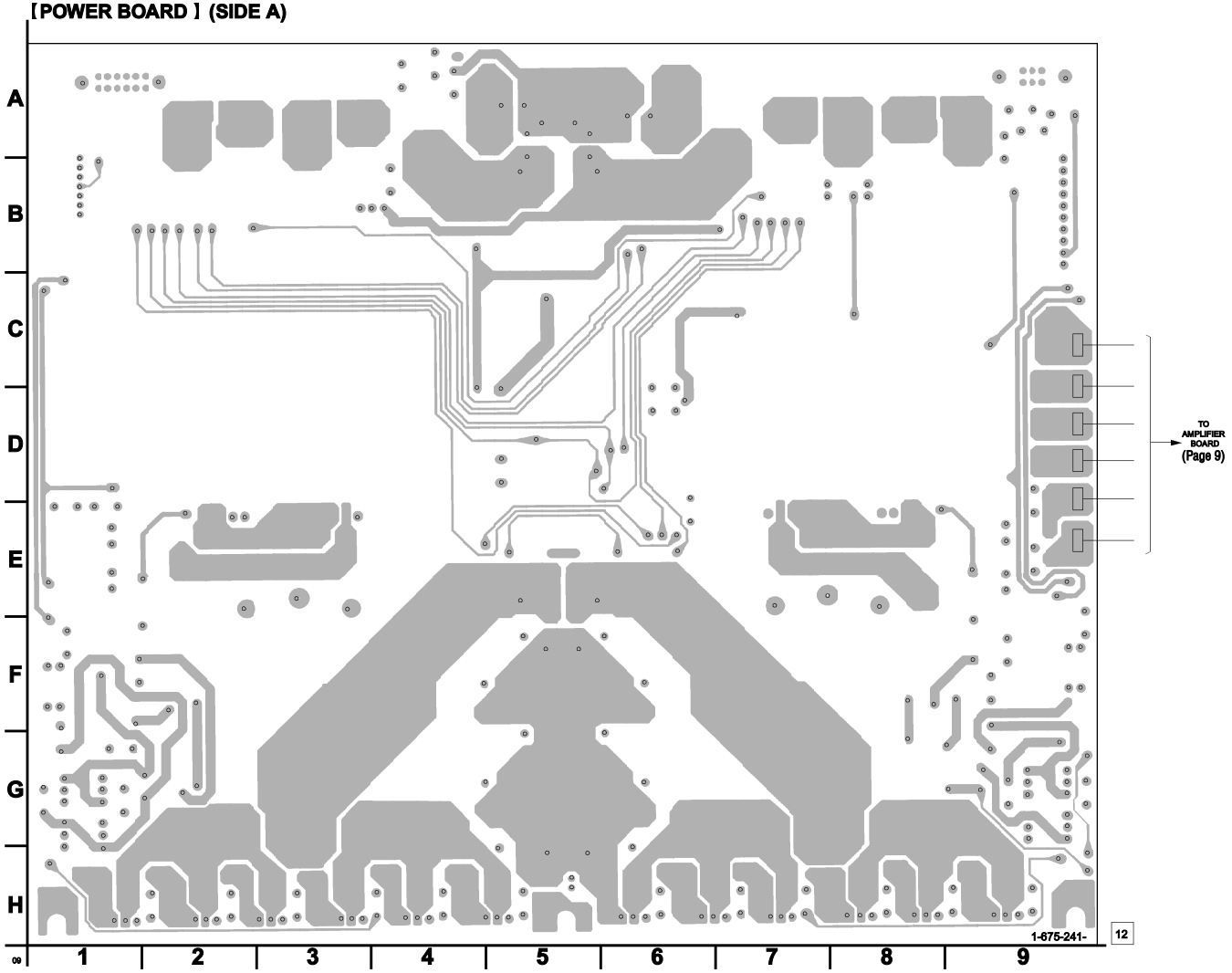
**: Serial No. 0012001-, no mount

• SCHEMATIC DIAGRAM – POWER/AMPLIFIER (3/3) LED SECTION –



• PRINTED WIRING BOARD – POWER SECTION –

【POWER BOARD 】(SIDE A)

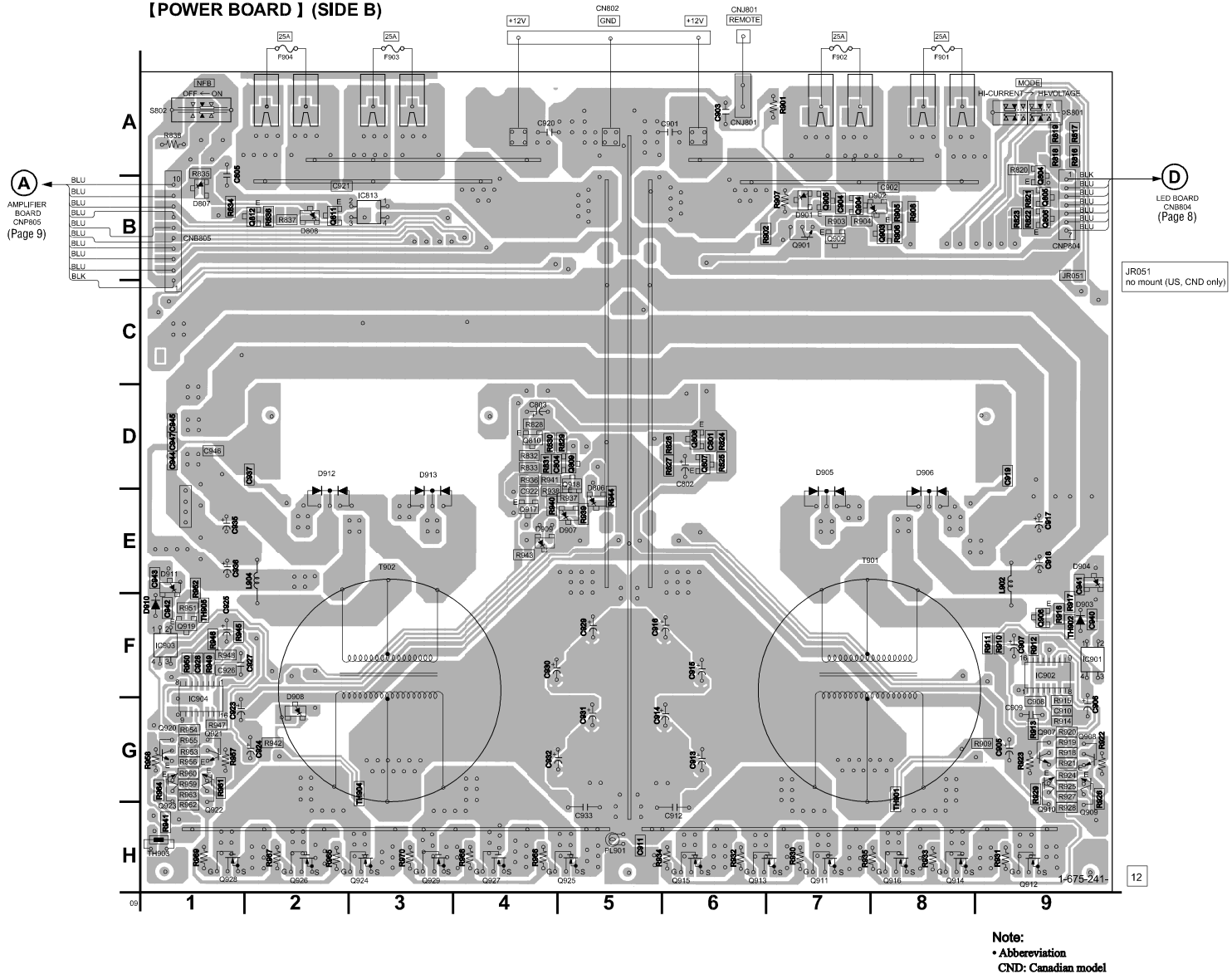


• PRINTED WIRING BOARD – POWER SECTION –

• Semiconductor Location

Ref. No.	Location
D806	E-5
D807	B-1
D808	B-2
D901	B-7
D902	B-8
D903	F-9
D904	E-9
D905	E-7
D906	E-8
D907	E-5
D908	G-2
D909	E-4
D910	F-1
D911	E-1
D912	E-2
D913	E-3
IC813	B-3
IC901	F-9
IC902	F-9
IC903	F-1
IC904	F-1
Q804	B-9
Q805	B-9
Q806	B-9
Q807	D-6
Q808	D-6
Q809	D-5
Q810	D-4
Q811	B-2
Q812	B-2
Q901	B-7
Q902	B-7
Q903	B-8
Q904	B-7
Q905	B-7
Q906	F-9
Q907	G-9
Q908	G-9
Q909	G-9
Q910	G-9
Q911	H-7
Q912	H-9
Q913	H-6
Q914	H-8
Q915	H-6
Q916	H-8
Q917	E-4
Q918	D-5
Q919	F-1
Q920	G-1
Q921	G-1
Q922	G-1
Q923	G-1
Q924	H-3
Q925	H-5
Q926	H-2
Q927	H-4
Q928	H-1
Q929	H-3

【POWER BOARD 】(SIDE B)



Note:
• Abbreviation
CND: Canadian model

XM-7547

SONY

SERVICE MANUAL

US Model
Canadian Model
AEP Mode
UK Model
E Model

SUPPLEMENT-2

File this supplement with the service manual.

Subject: 1. CORRECTION
2. CHANGE OF BOARDS
3. CHANGE OF STRUCTURE

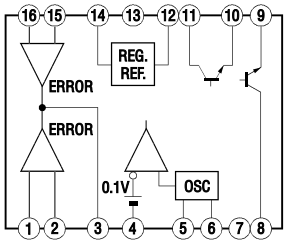
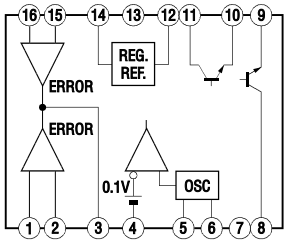
(ENG-00004)

1. CORRECTION

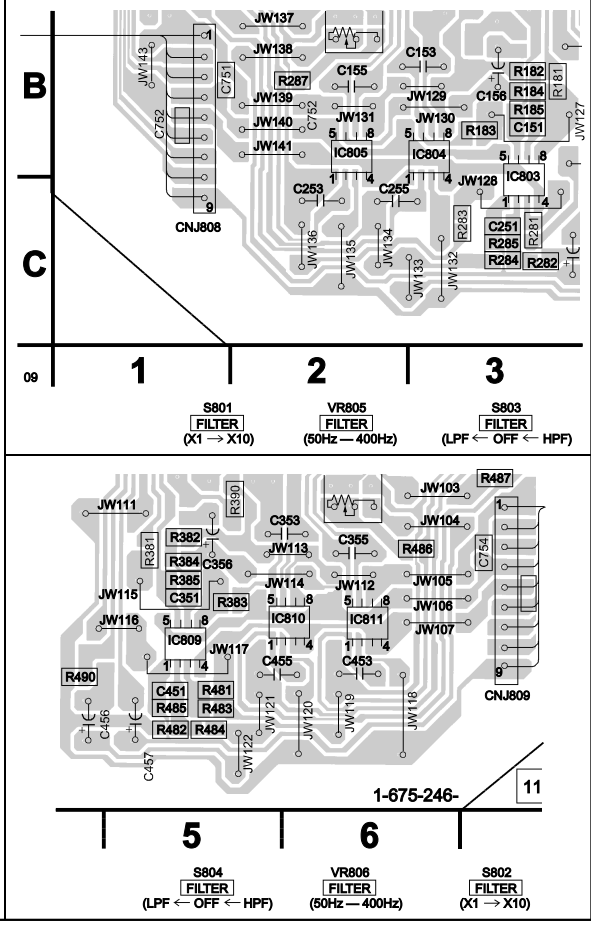
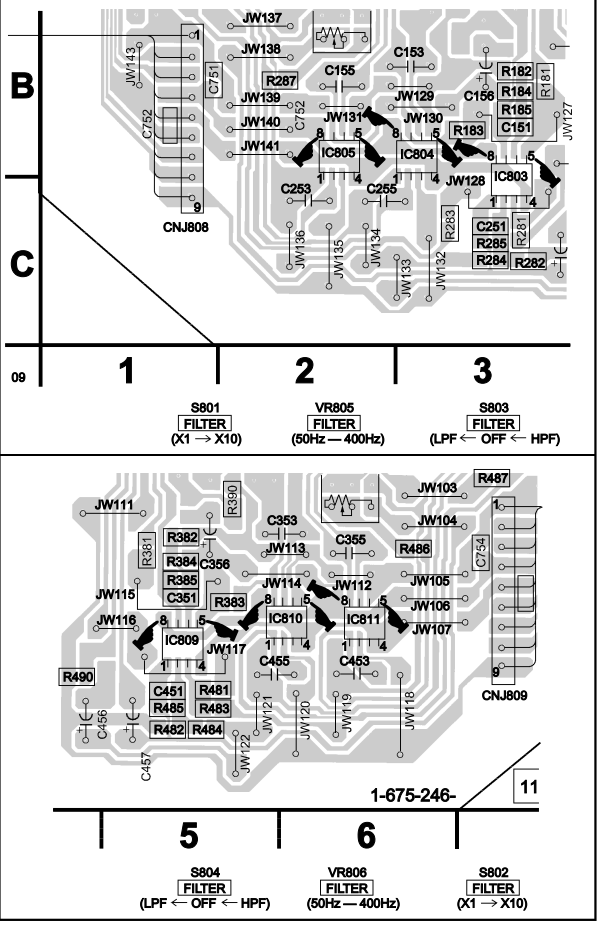
Correct your service manual supplement-1 as shown below.

IC BLOCK DIAGRAM

☛ : indicates corrected portion

Page	INCORRECT	CORRECT
10	**• POWER section** **IC902, 904 μPC494G2** 	**• POWER section** **IC902, 904 μPC494GS-T1** 

PRINTED WIRING BOARD – LED/FILTER Section –
☛ : indicates corrected portion
page (8) : Refer to SERVICE MANUAL SUPPLEMENT-1.

Page	INCORRECT	CORRECT
(8)		

PRINTED WIRING BOARD – AMPLIFIER SECTION –
☛ : indicates corrected portion
page (10) : Refer to SERVICE MANUAL SUPPLEMENT-1.

Page	INCORRECT	CORRECT
(10)		DIFFERECF TABLE (Apply it US/CND models)

	Serial No. 001001-0011100	Serial No. 0012001-
D105	MT	NOMT
D106	NOMT	MT
D205	MT	NOMT
D206	NOMT	MT
D103	MT	NOMT
D104	MOMT	MT
D203	MT	NOMT
D204	NOMT	MT

R246	MT	NOMT
R248	NOMT	MT
R247	MT	NOMT
R247	NOMT	MT
R143	MT	NOMT
R145	MT	NOMT
R243	MT	NOMT
R245	MT	NOMT

R246	MT	NOMT
R248	NOMT	MT
R247	MT	NOMT
R249	NOMT	MT
R143	MT	NOMT
R145	MT	NOMT
R243	MT	NOMT
R245	MT	NOMT

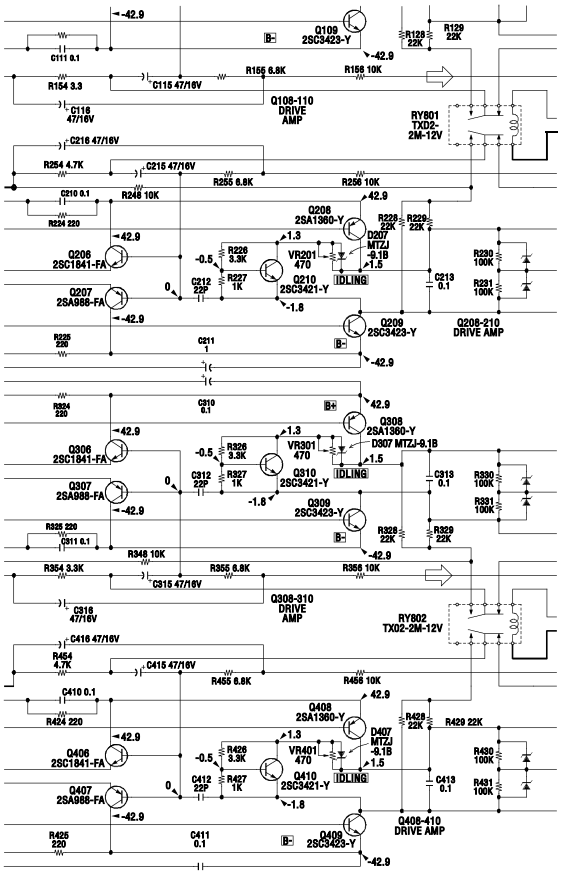
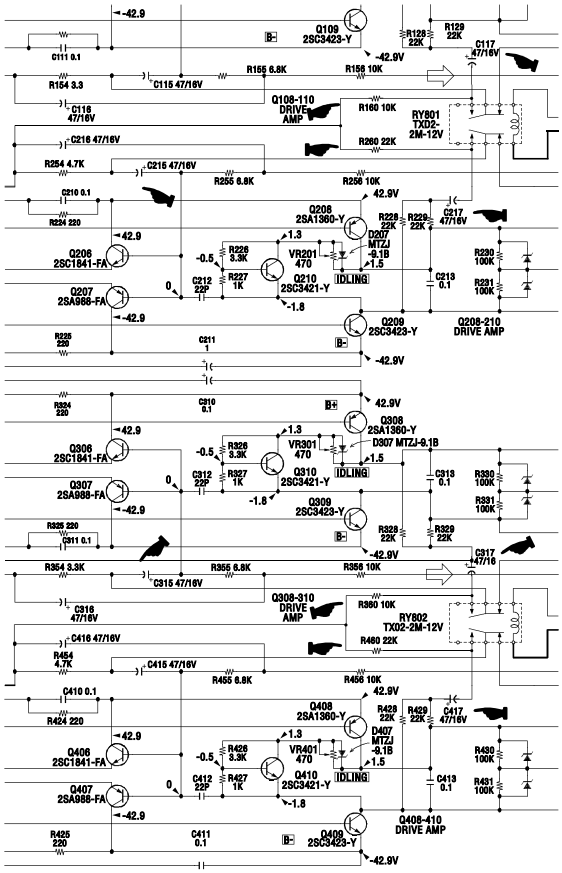
NOTE:
* : Serial No. 001001-0011100, no mount
**: Serial No. 0012001-, no mount

Apply it SUFFIX -11, -12 OF AMPLIFIER BOARD

SCHEMATIC DIAGRAM – AMPLIFIER (2/3) SECTION –

☛ : indicates changed portion

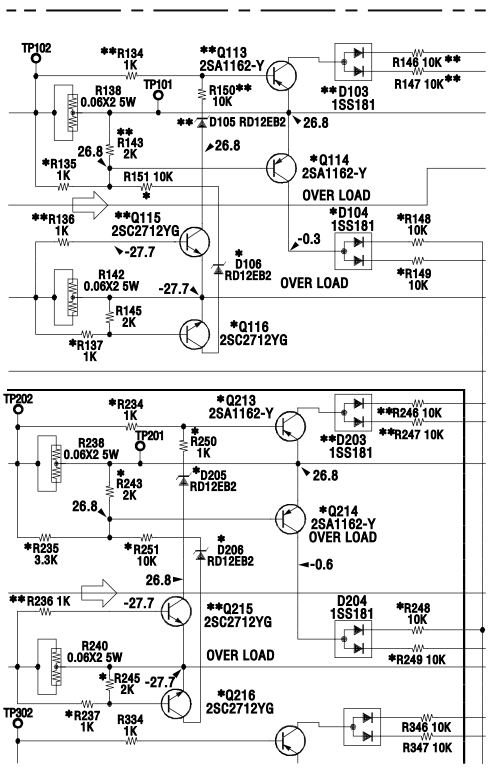
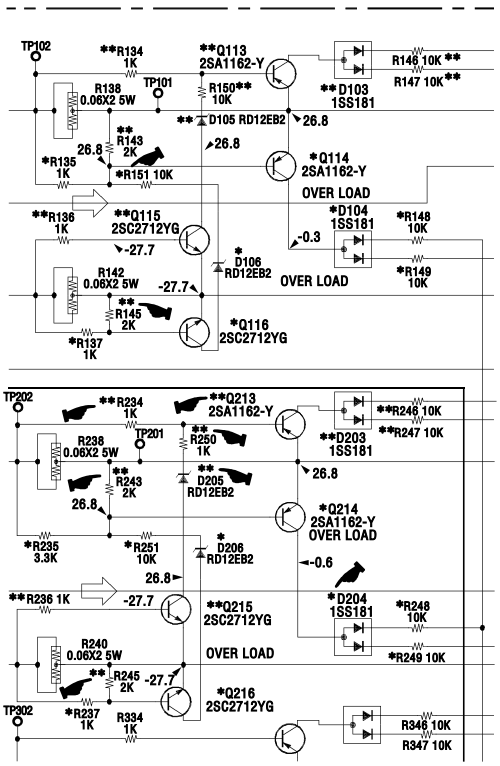
page (10) : Refer to SERVICE MANUAL SUPPLEMENT-1.

Page	Former Type	New Type
(10)		

SCHEMATIC DIAGRAM – AMPLIFIER (2/3) SECTION –

☛ : indicates corrected portion

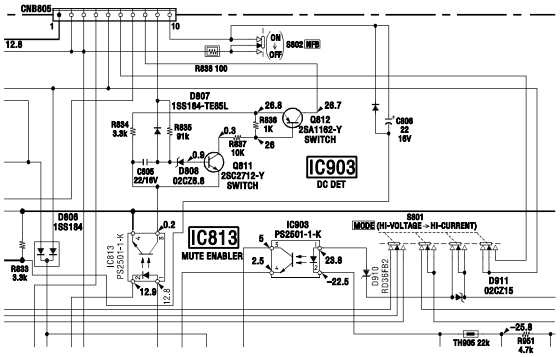
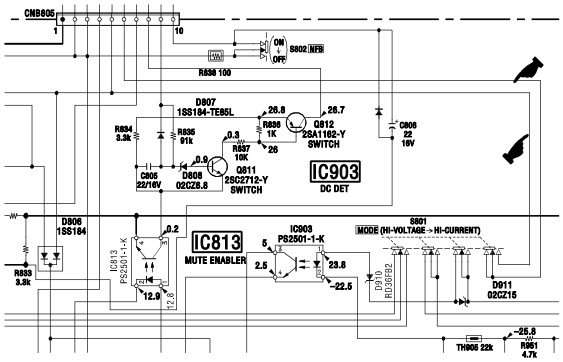
page (10) : Refer to SERVICE MANUAL SUPPLEMENT-1.

Page	INCORRECT	CORRECT
(10)		

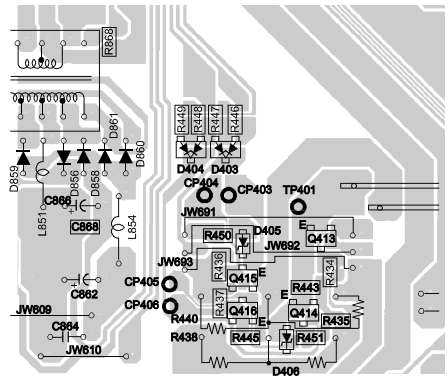
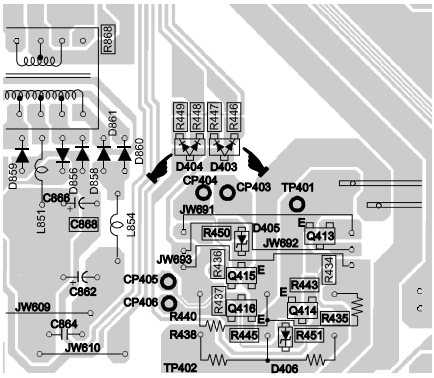
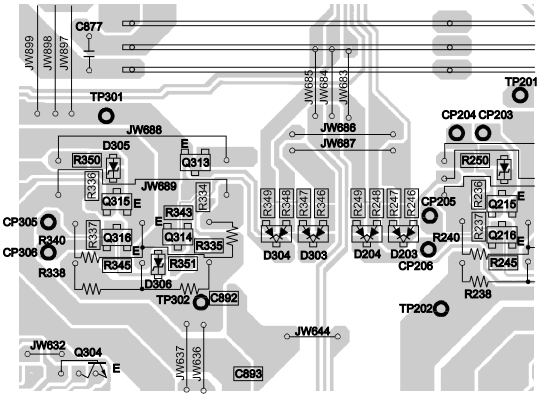
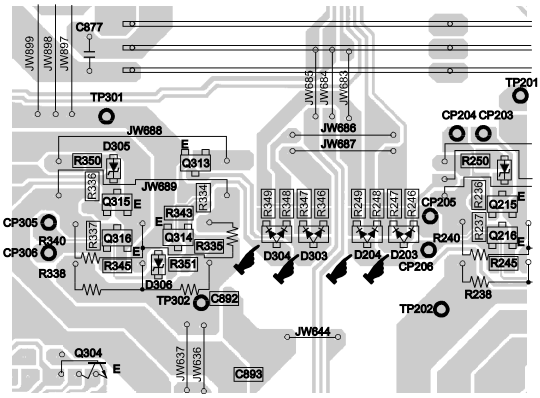
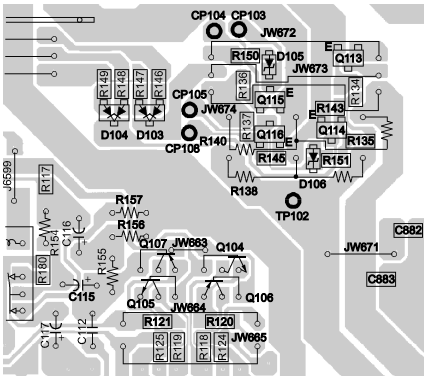
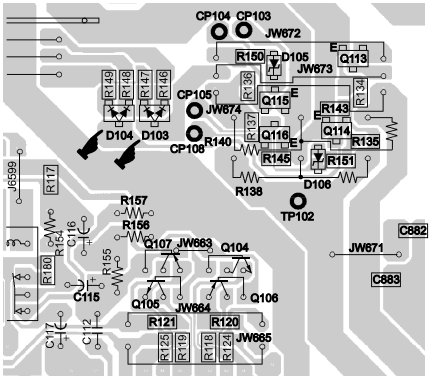
SCHEMATIC DIAGRAM – POWER/AMPLIFIER (3/3) SECTION –

☛ : indicates corrected portion

page (11) : Refer to SERVICE MANUAL SUPPLEMENT-1.

Page	INCORRECT	CORRECT
(11)		

PRINTED WIRING BOARD – AMPLIFIER SECTION –
☛ : indicates corrected portion
page (9) : Refer to SERVICE MANUAL SUPPLEMENT-1.

Page	INCORRECT	CORRECT
12 (9)		
		
		

Apply it SUFFIX -11, -12 OF AMPLIFIER BOARD

ELECTRICAL PARTS LIST
☛ : indicates changed portion

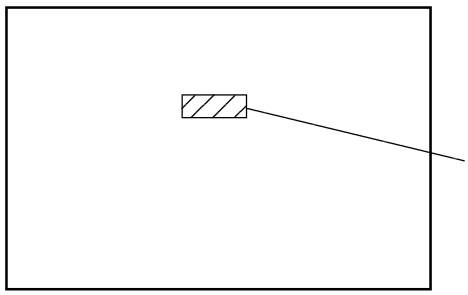
Page	Former Type						New Type					
	Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
19			————				C117	1-126-008-51	ELECT	470uF	20%	16V ↘
			————				C217	1-126-008-51	ELECT	470uF	20%	16V ↘
			————				C317	1-126-008-51	ELECT	470uF	20%	16V ↘
			————				C417	1-126-008-51	ELECT	470uF	20%	16V ↘
22			————				R160	1-208-462-61	RES-CHIP	10K	2%	1/10W ↘
	R248	1-208-462-61	RES-CHIP	10K	2%	1/10W			———— ↘			
			————				R260	1-208-518-61	RES-CHIP	22K	2%	1/10W ↘
	R348	1-208-462-61	RES-CHIP	10K	2%	1/10W			———— ↘			
			————				R360	1-208-462-61	RES-CHIP	10K	2%	1/10W ↘
23			————				R460	1-208-462-61	RES-CHIP	10K	2%	1/10W ↘

2. CHANGE OF BOARDS

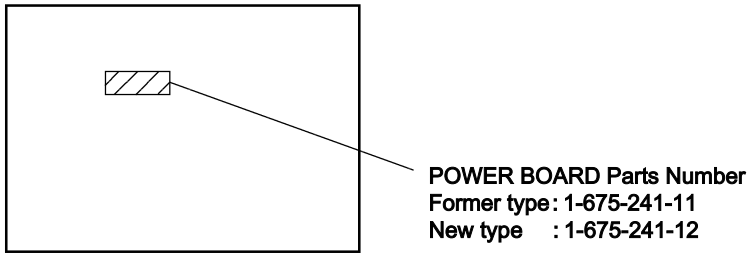
The Amplifier Board and the Power Board were changed.
All schematic diagrams of the new type, printed wiring boards are published here.

Distinguish the new type, the old type with the printed wiring board number.

[AMPLIFIER BOARD]



[POWER BOARD]



IDLING CURRENT ADJUSTMENT

☛ : indicates changed portion

<table>
<tr><th>Page</th><th>Former Type</th><th>New Type</th></tr>
<tr><td>7</td><td>③ Approximate adjustment values
• Adjust as follows so that the following voltages become 0.4 to 0.5 mV.
(Board parts number : 1-675-240-11, 1-675-240-12)

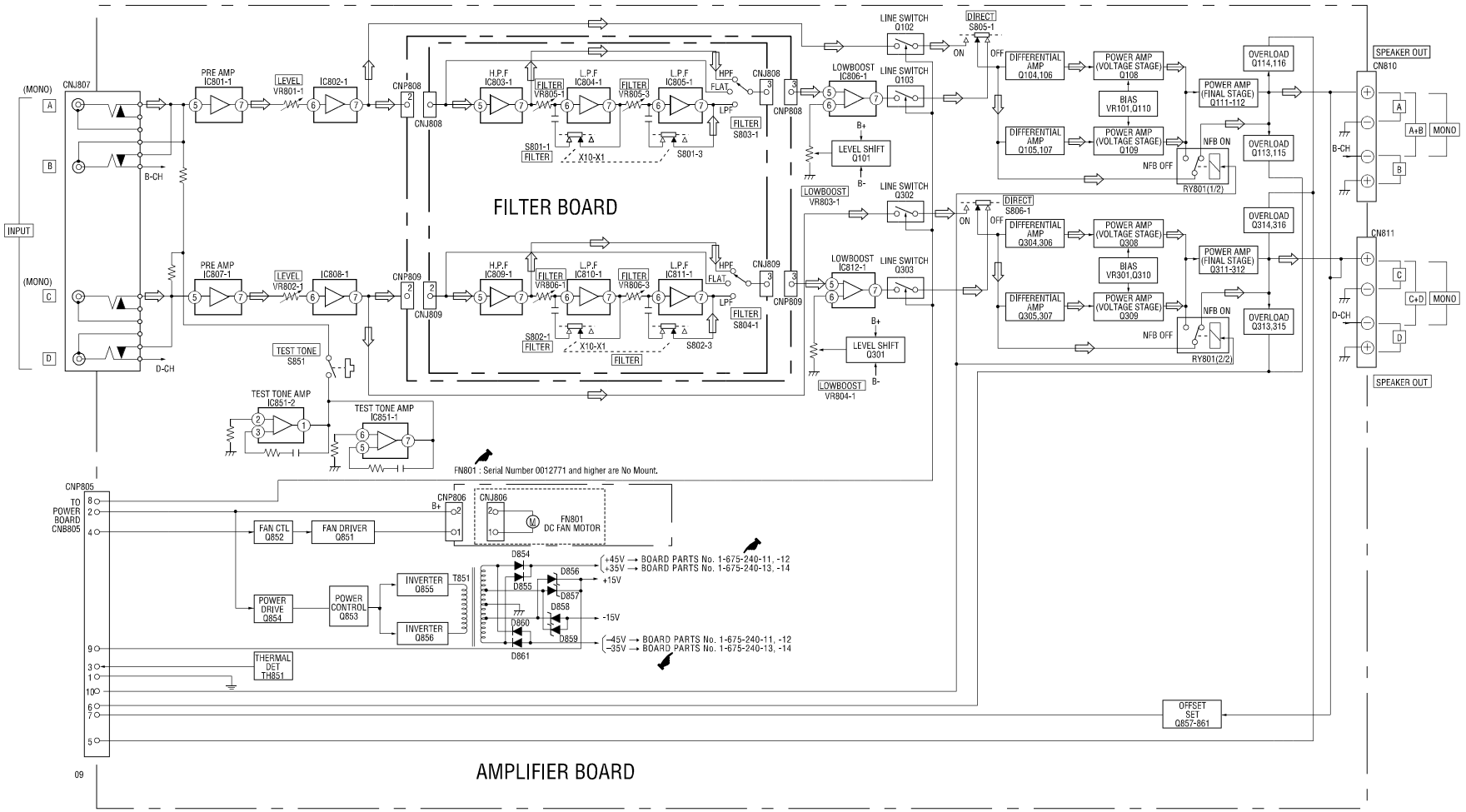
A channel :
Voltage between TP101 and TP102: Use VR101 of the amplifier board
B channel :
Voltage between TP201 and TP202: Use VR201 of the amplifier board
C channel :
Voltage between TP301 and TP302: Use VR301 of the amplifier board
D channel :
Voltage between TP401 and TP402: Use VR401 of the amplifier board</td><td>③ Approximate adjustment values
• Adjust as follows so that the following voltages become 0.4 to 0.5 mV.
(Board parts number : 1-675-240-11, 1-675-240-12)
☛ • Adjust as follows so that the following voltages become 0.9 to 1.0 mV.
(Board parts number : 1-675-240-13 and higher)
But, the voltage when product doesn't warm up is 0.6 to 0.7 mV.

A channel :
Voltage between TP101 and TP102: Use VR101 of the amplifier board
B channel :
Voltage between TP201 and TP202: Use VR201 of the amplifier board
C channel :
Voltage between TP301 and TP302: Use VR301 of the amplifier board
D channel :
Voltage between TP401 and TP402: Use VR401 of the amplifier board

☛ Note:
Precautions regarding the replacement of parts for MOSFET:
Parts for the amplifier board suffix 11, 12 (serial numbers 0010001 to 012100) are each paired parts. Consequently, when replacing parts, if they are not replaced in pairs, it is impossible to guarantee the above adjustment values.

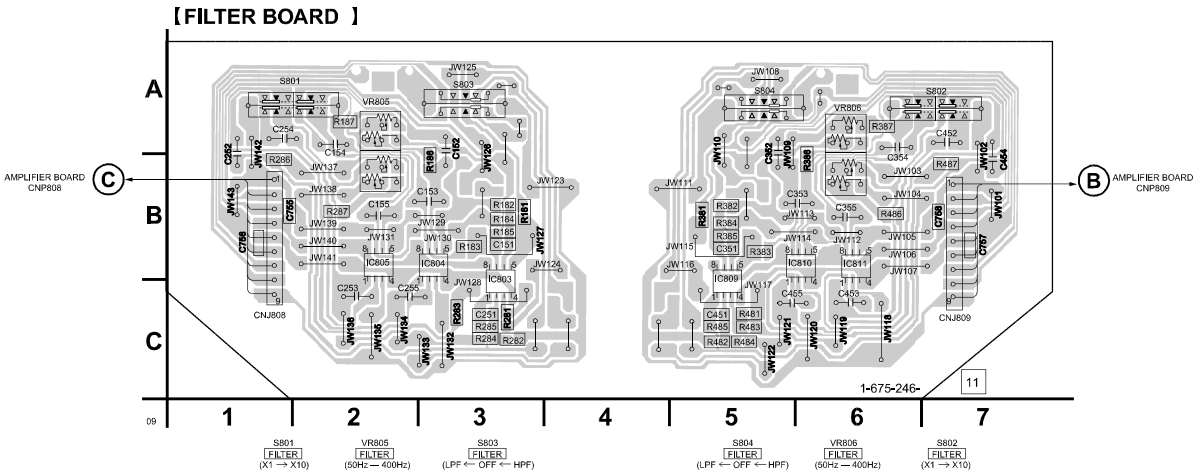
<table>
<tr><th>Part Ref. No.</th><th>Replacement Part</th><th>Remarks</th></tr>
<tr><td>Q110, 111</td><td rowspan="4">X-3378-771-1
MOSFET Pair ASSY</td><td rowspan="4">They are supplied in pairs</td></tr>
<tr><td>Q210, 211</td></tr>
<tr><td>Q311, 312</td></tr>
<tr><td>Q411, 412</td></tr>
</table>
</td></tr>
</table>

BLOCK DIAGRAM – AMPLIFIER SECTION –
☛ : Indicates changed portion



• Signal path
⇨ : Audio

• **PRINTED WIRING BOARD – LED/FILTER SECTION –**



• **Semiconductor Location**

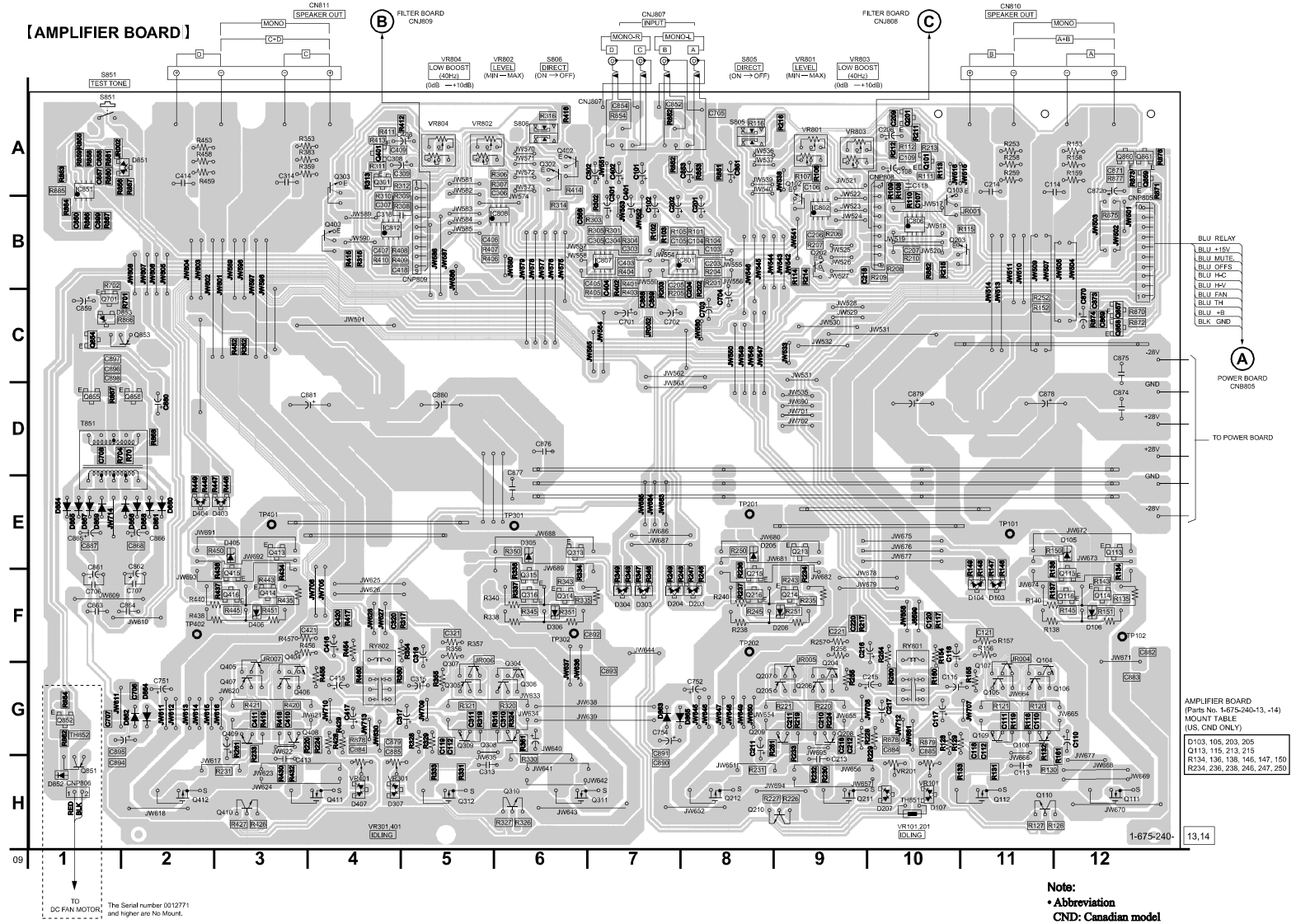
Ref. No.	Location
IC803	C-3
IC804	B-3
IC805	B-2
IC809	C-5
IC810	B-6
IC811	B-6

Apply it SUFFIX -13, -14 OF AMPLIFIER BOARD

• PRINTED WIRING BOARD – AMPLIFIER SECTION –

• Semiconductor Location

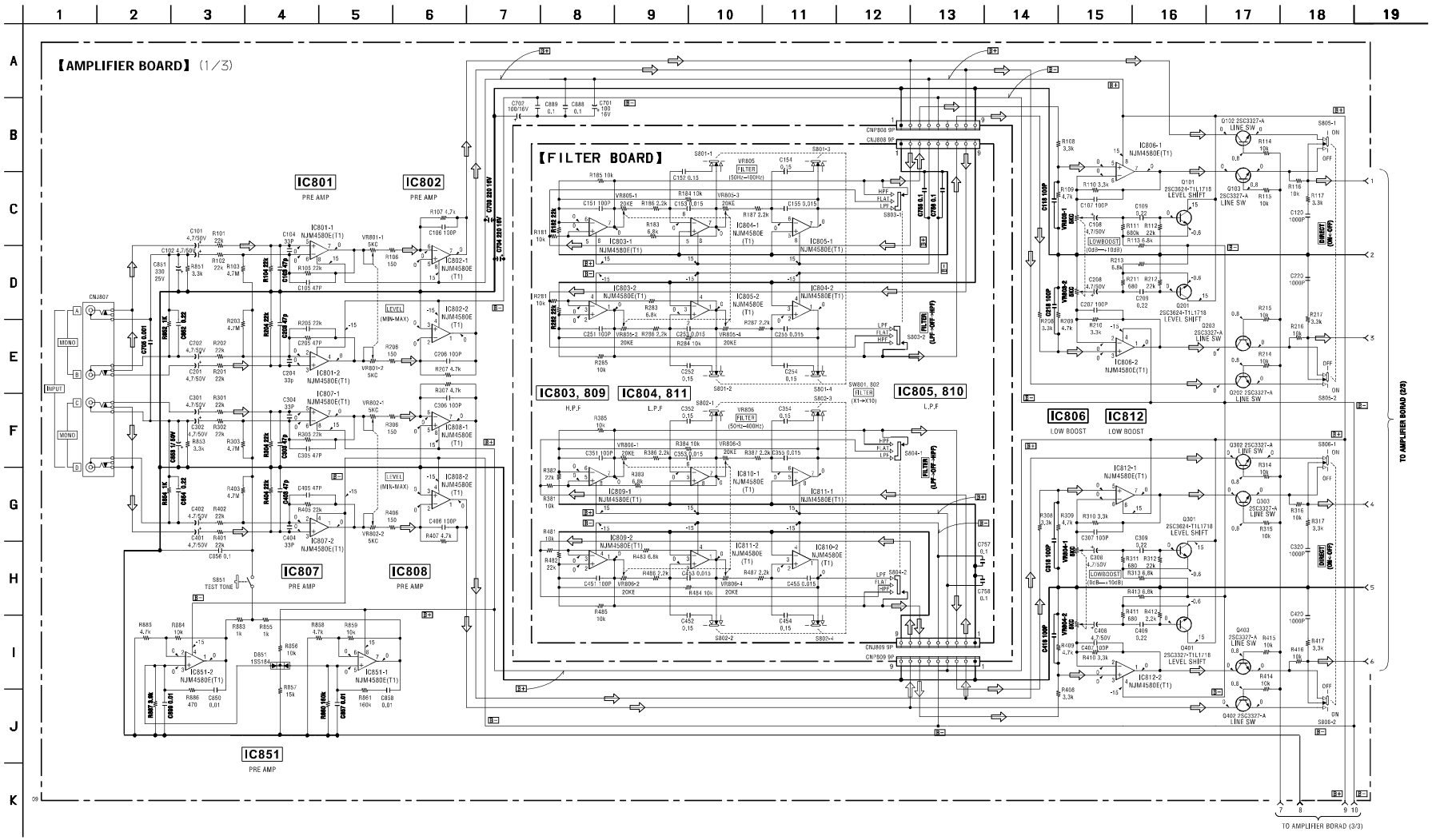
Ref. No.	Location	Ref. No.	Location
D103	F-11	Q116	F-12
D104	F-11	Q201	A-10
D105	E-12	Q202	B-9
D106	F-12	Q203	B-10
D107	H-10	Q204	G-9
D203	F-8	Q205	G-9
D204	F-7	Q206	G-9
D205	E-8	Q207	G-9
D206	F-9	Q208	G-9
D207	H-10	Q209	G-9
D301	H-6	Q210	H-8
D302	H-5	Q211	H-9
D303	F-7	Q212	H-8
D304	F-7	Q213	E-9
D305	E-6	Q214	F-9
D306	F-6	Q215	E-8
D307	H-4	Q216	F-8
D403	E-3	Q301	A-4
D404	E-2	Q302	A-6
D405	E-3	Q303	A-4
D406	F-3	Q304	G-6
D407	H-4	Q305	G-5
D851	A-1	Q306	G-6
D852	G-1	Q307	G-5
D853	C-1	Q308	G-6
D854	E-1	Q309	G-5
D855	E-1	Q310	H-6
D856	E-2	Q311	H-6
D857	E-1	Q312	H-5
D858	E-2	Q313	E-6
D859	E-1	Q314	F-6
D860	E-2	Q315	E-6
D861	E-2	Q316	F-6
D862	G-2	Q401	A-4
D863	G-7	Q402	A-6
D864	G-2	Q403	B-4
D865	G-7	Q404	G-3
		Q405	G-3
IC801	B-8	Q406	G-3
IC802	B-9	Q407	G-3
IC806	B-10	Q408	G-3
IC807	B-7	Q409	G-3
IC808	B-6	Q410	H-3
IC812	B-4	Q411	H-3
IC851	A-1	Q412	H-2
		Q413	E-3
Q101	A-10	Q414	F-3
Q102	A-9	Q415	E-3
Q103	A-10	Q416	F-3
Q104	G-11	Q701	C-1
Q105	G-11	Q851	H-1
Q106	G-11	Q852	G-1
Q107	G-11	Q853	C-1
Q108	G-11	Q854	C-1
Q109	G-11	Q855	D-1
Q110	H-11	Q856	D-2
Q111	H-12	Q857	C-12
Q112	H-11	Q858	C-12
Q113	E-12	Q859	A-12
Q114	F-12	Q860	A-12
Q115	E-12	Q861	A-12



Note:
• Abbreviation
CND: Canadian model

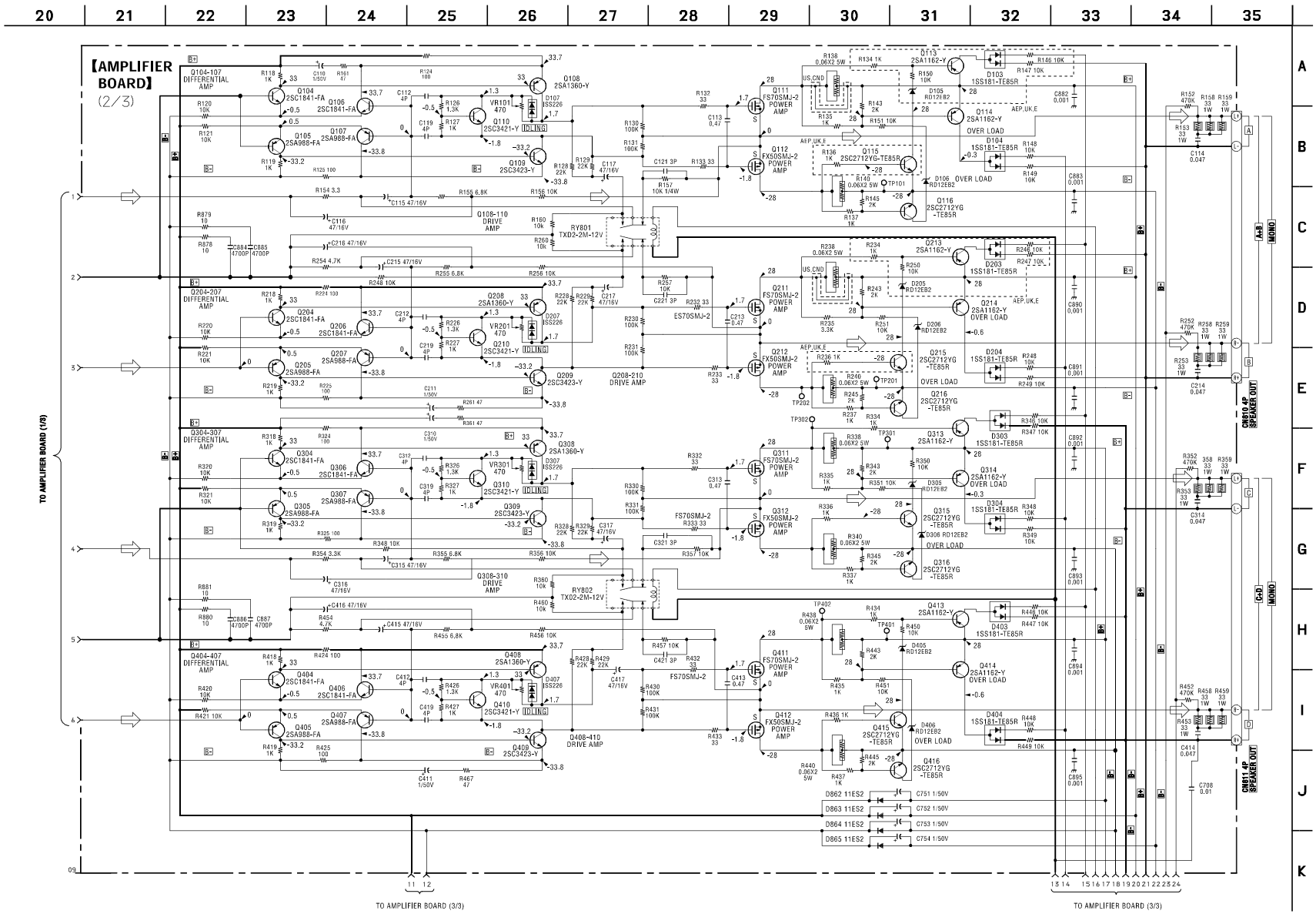
Apply it SUFFIX -13, -14 OF AMPLIFIER BOARD

• SCHEMATIC DIAGRAM – FILTER/AMPLIFIER (1/3) SECTION –



Apply It SUFFIX -13, -14 OF AMPLIFIER BOARD

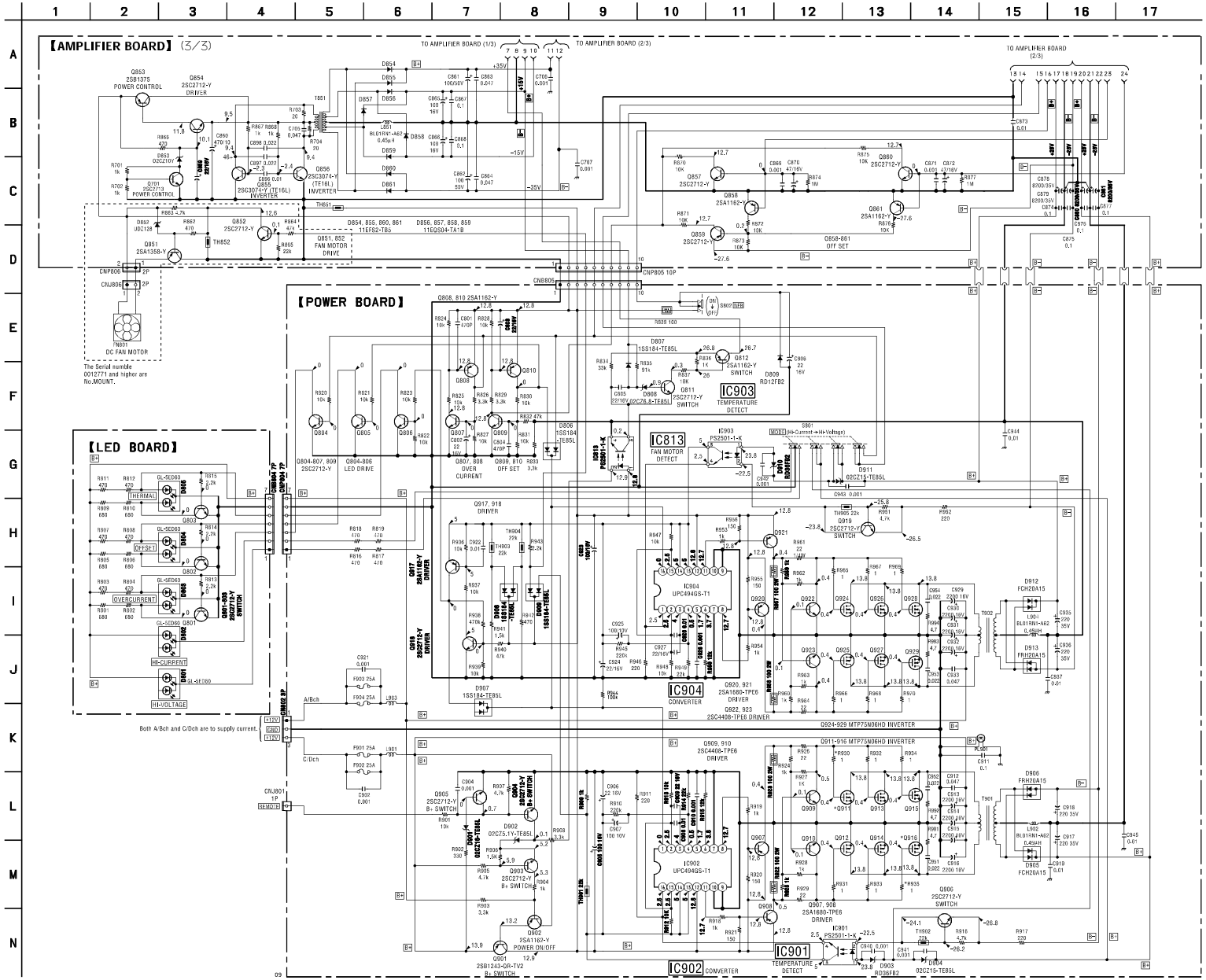
• SCHEMATIC DIAGRAM – AMPLIFIER (2/3) SECTION –



Apply it SUFFIX -13, -14 OF AMPLIFIER BOARD

• SCHEMATIC DIAGRAM – POWER/AMPLIFIER (3/3) LED SECTION –

• See page for IC Block Diagram.

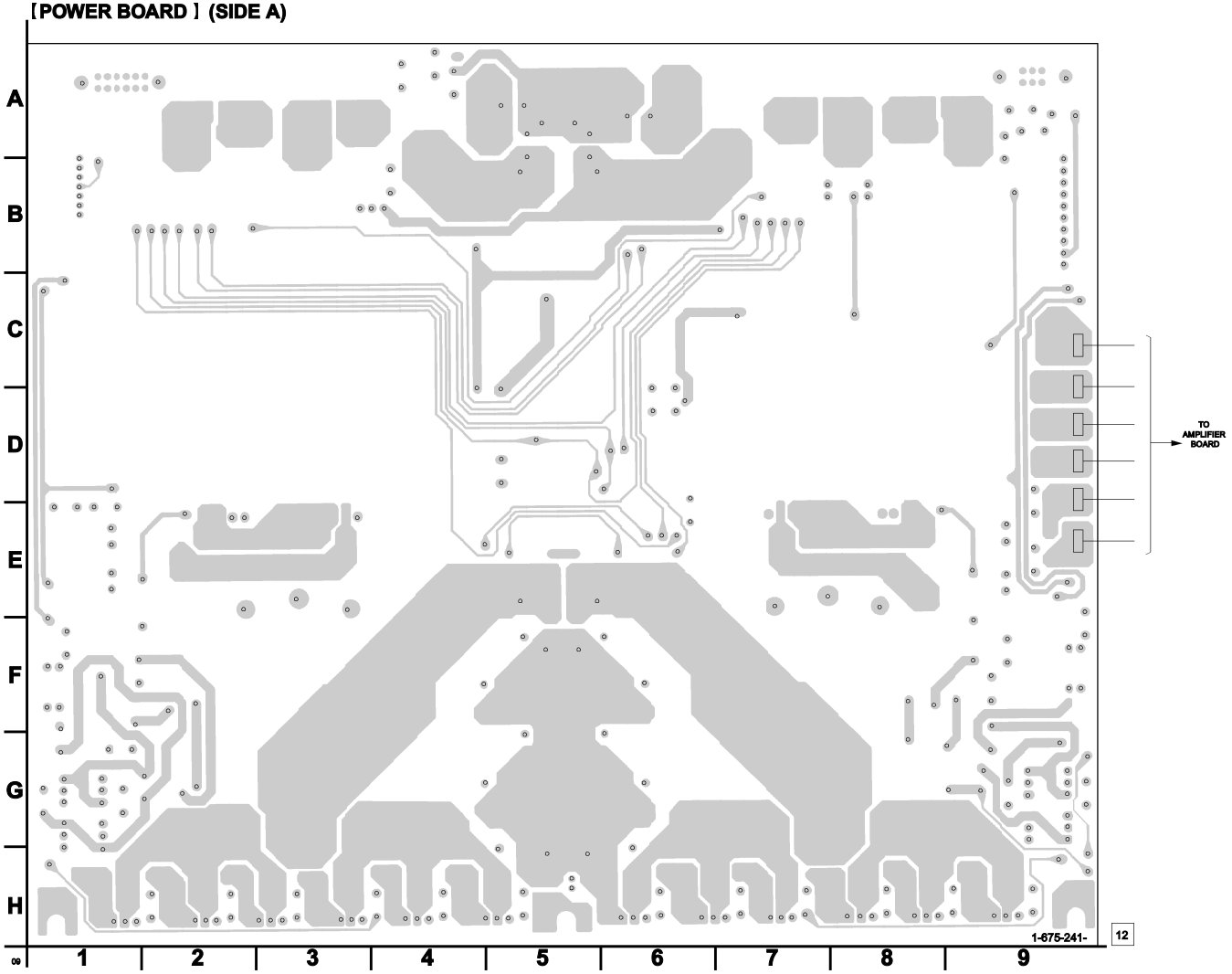


[POWER BOARD]
US, Canadian MODEL ONLY
SERIAL NO. 0012441 AND HIGHER

*Q911	NO MOUNT
*Q916	NO MOUNT
*R930	NO MOUNT
*R935	NO MOUNT

• PRINTED WIRING BOARD – POWER SECTION –

【POWER BOARD 】(SIDE A)

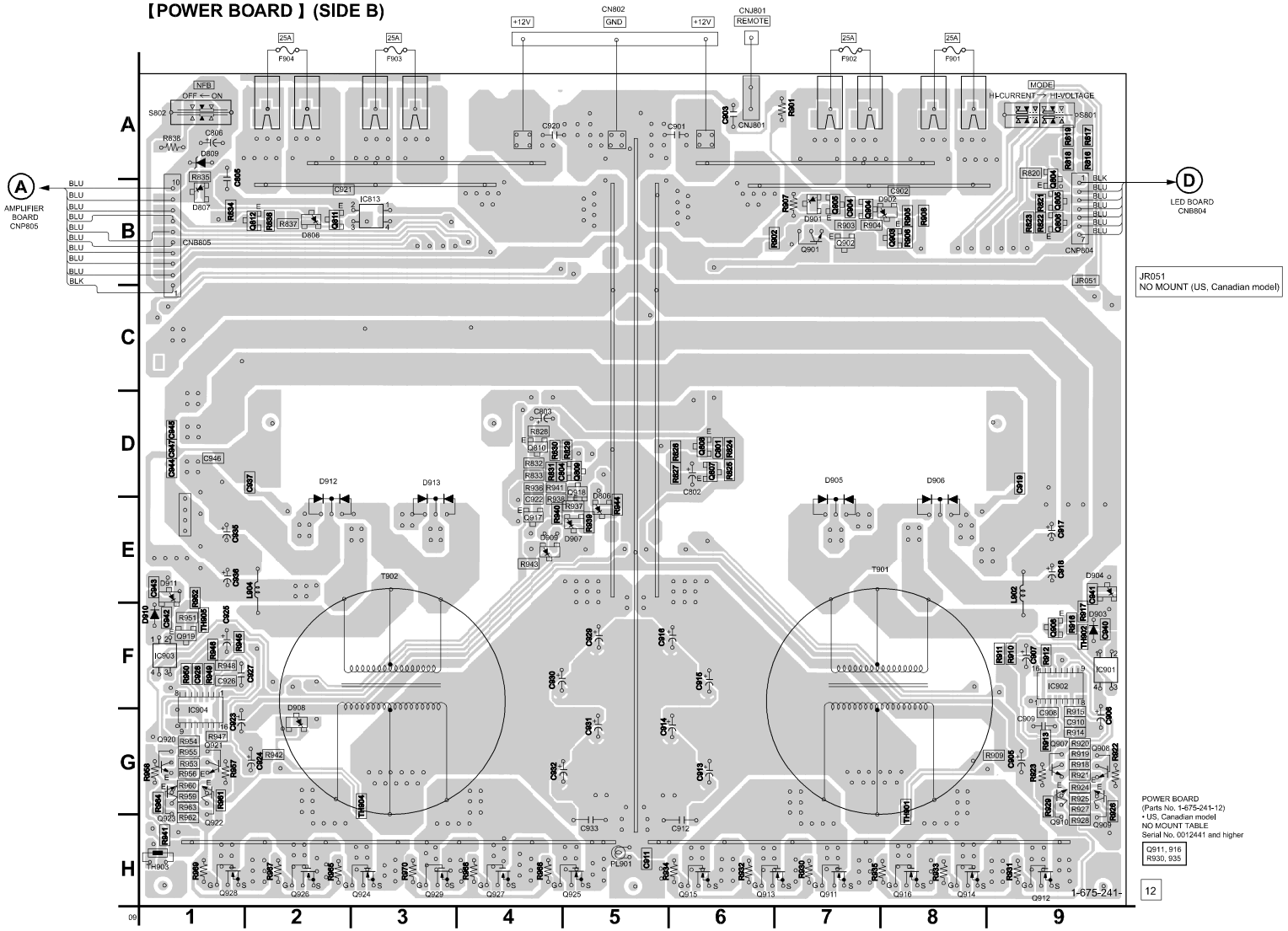


• PRINTED WIRING BOARD – POWER SECTION –

• Semiconductor Location

Ref. No.	Location
D806	E-5
D807	B-1
D808	B-2
D809	A-1
D901	B-7
D902	B-8
D903	F-9
D904	E-9
D905	E-7
D906	E-8
D907	E-5
D908	G-2
D909	E-4
D910	F-1
D911	E-1
D912	E-2
D913	E-3
IC813	B-3
IC901	F-9
IC902	F-9
IC903	F-1
IC904	F-1
Q804	B-9
Q805	B-9
Q806	B-9
Q807	D-6
Q808	D-6
Q809	D-5
Q810	D-4
Q811	B-2
Q812	B-2
Q901	B-7
Q902	B-7
Q903	B-8
Q904	B-7
Q905	B-7
Q906	F-9
Q907	G-9
Q908	G-9
Q909	G-9
Q910	G-9
Q911	H-7
Q912	H-9
Q913	H-6
Q914	H-8
Q915	H-6
Q916	H-8
Q917	E-4
Q918	D-5
Q919	F-1
Q920	G-1
Q921	G-1
Q922	G-1
Q923	G-1
Q924	H-3
Q925	H-5
Q926	H-2
Q927	H-4
Q928	H-1
Q929	H-3

【POWER BOARD 】(SIDE B)



New Type

ELECTRICAL PARTS LIST

AMP

Note:

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS
  All resistors are in ohms
  METAL: Metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F : nonflammable
- SEMICONDUCTORS
  In each case, u: μ , for example:
  uA...: μ A..., uPA...: μ PA..., uPB...: μ PB..., uPC...: μ PC..., uPD...: μ PD...
- CAPACITORS
  uF : μ F
- COILS
  uH : μ H
- Abbreviation
  CND : Canadian model

Ref. No.	Part No.	Description			Remark
*	A-3317-930-A	AMP BOARD, COMPLETE (US,CND)			
		**********			
*	A-3326-258-A	AMP MBOARD, COMPLETE (AEP,UK,E)			
		**********			
		< CAPACITOR >			
C101	1-126-047-21	ELECT	4.7uF	20%	50V
C102	1-126-047-21	ELECT	4.7uF	20%	50V
C103	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C104	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C105	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C106	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C107	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C108	1-126-047-21	ELECT	4.7uF	20%	50V
C109	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C110	1-126-044-11	ELECT	1uF	20%	50V
C112	1-164-356-11	CERAMIC CHIP	4PF	0.25PF	200V
C113	1-136-173-00	MYLAR	0.47uF	5%	50V
C114	1-136-161-00	MYLAR	0.047uF	5%	50V
C115	1-126-008-51	ELECT	47uF	20%	16V
C116	1-126-008-51	ELECT	47uF	20%	16V
C117	1-126-008-51	ELECT	47uF	20%	16V
C118	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C119	1-164-356-11	CERAMIC CHIP	4PF	0.25PF	200V
C120	1-130-471-00	MYLAR	0.001uF	5%	50V
C121	1-102-936-00	CERAMIC	3PF		50V
C201	1-126-047-21	ELECT	4.7uF	20%	50V
C202	1-126-047-21	ELECT	4.7uF	20%	50V
C203	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C204	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C205	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C206	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C207	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C208	1-126-047-21	ELECT	4.7uF	20%	50V
C209	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C211	1-126-044-11	ELECT	1uF	20%	50V
C212	1-164-356-11	CERAMIC CHIP	4PF	0.25PF	200V
C213	1-136-173-00	MYLAR	0.47uF	5%	50V
C214	1-136-161-00	MYLAR	0.047uF	5%	50V
C215	1-126-008-51	ELECT	47uF	20%	16V
C216	1-126-008-51	ELECT	47uF	20%	16V
C217	1-126-008-51	ELECT	47uF	20%	16V
C218	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C219	1-164-356-11	CERAMIC CHIP	4PF	0.25PF	200V
C220	1-130-471-00	MYLAR	0.001uF	5%	50V
C221	1-102-936-00	CERAMIC	3PF		50V

Ref. No.	Part No.	Description			Remark
C301	1-126-047-21	ELECT	4.7uF	20%	50V
C302	1-126-047-21	ELECT	4.7uF	20%	50V
C303	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C304	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C305	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C306	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C307	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C308	1-126-047-21	ELECT	4.7uF	20%	50V
C309	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C310	1-126-044-11	ELECT	1uF	20%	50V
C312	1-164-356-11	CERAMIC CHIP	4PF	0.25PF	200V
C313	1-136-173-00	MYLAR	0.47uF	5%	50V
C314	1-136-161-00	MYLAR	0.047uF	5%	50V
C315	1-126-008-51	ELECT	47uF	20%	16V
C316	1-126-008-51	ELECT	47uF	20%	16V
C317	1-126-008-51	ELECT	47uF	20%	16V
C318	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C319	1-164-356-11	CERAMIC CHIP	4PF	0.25PF	200V
C320	1-130-471-00	MYLAR	0.001uF	5%	50V
C321	1-102-936-00	CERAMIC	3PF		50V
C401	1-126-047-21	ELECT	4.7uF	20%	50V
C402	1-126-047-21	ELECT	4.7uF	20%	50V
C403	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C404	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C405	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C406	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C407	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C408	1-126-047-21	ELECT	4.7uF	20%	50V
C409	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C411	1-126-044-11	ELECT	1uF	20%	50V
C412	1-164-356-11	CERAMIC CHIP	4PF	0.25PF	200V
C413	1-136-173-00	MYLAR	0.47uF	5%	50V
C414	1-136-161-00	MYLAR	0.047uF	5%	50V
C415	1-126-008-51	ELECT	47uF	20%	16V
C416	1-126-008-51	ELECT	47uF	20%	16V
C417	1-126-008-51	ELECT	47uF	20%	16V
C418	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C419	1-164-356-11	CERAMIC CHIP	4PF	0.25PF	200V
C420	1-130-471-00	MYLAR	0.001uF	5%	50V
C421	1-102-936-00	CERAMIC	3PF		50V
C701	1-126-009-81	ELECT	100uF	20%	16V
C702	1-126-009-81	ELECT	100uF	20%	16V
C703	1-126-024-11	ELECT	220uF	20%	16V
C704	1-126-024-11	ELECT	220uF	20%	16V
C705	1-104-760-11	CERAMIC CHIP	0.047uF	10%	50V
C706	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V

AMP

Ref. No.	Part No.	Description			Remark
C707	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C751	1-126-044-11	ELECT	1uF	20%	50V
C752	1-126-044-11	ELECT	1uF	20%	50V
C753	1-126-044-11	ELECT	1uF	20%	50V
C754	1-126-044-11	ELECT	1uF	20%	50V
C850	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C851	1-126-025-11	ELECT	330uF	20%	25V
C852	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C853	1-126-044-11	ELECT	1uF	20%	50V
C854	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C856	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C857	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C858	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C859	1-126-006-11	ELECT	22uF	20%	16V
C860	1-124-997-11	ELECT	470uF	20%	10V
C861	1-126-052-11	ELECT	100uF	20%	50V
C862	1-126-052-11	ELECT	100uF	20%	50V
C863	1-136-161-00	MYLAR	0.047uF	5%	50V
C864	1-136-161-00	MYLAR	0.047uF	5%	50V
C865	1-124-570-11	ELECT	220uF	20%	16V
C866	1-124-570-11	ELECT	220uF	20%	16V
C867	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C868	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C869	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C870	1-126-008-51	ELECT	47uF	20%	16V
C871	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C872	1-126-008-51	ELECT	47uF	20%	16V
C873	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C874	1-136-165-00	MYLAR	0.1uF	5%	50V
C875	1-136-165-00	MYLAR	0.1uF	5%	50V
C876	1-136-165-00	MYLAR	0.1uF	5%	50V
C877	1-136-165-00	MYLAR	0.1uF	5%	50V
C878	1-131-730-11	CAP, ELECT	8200uF		35V
C879	1-131-730-11	CAP, ELECT	8200uF		35V
C880	1-131-730-11	CAP, ELECT	8200uF		35V
C881	1-131-730-11	CAP, ELECT	8200uF		35V
C882	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C883	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C884	1-163-029-11	CERAMIC CHIP	0.0047uF		50V
C885	1-163-029-11	CERAMIC CHIP	0.0047uF		50V
C886	1-163-029-11	CERAMIC CHIP	0.0047uF		50V
C887	1-163-029-11	CERAMIC CHIP	0.0047uF		50V
C888	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C889	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C890	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C891	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C892	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C893	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C894	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C895	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C896	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C897	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C898	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C899	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
		< CONNECTOR >			
CN810	1-694-619-11	TERMINAL BOARD (4P) (SPEAKER OUT A/B CHANNELE)			
CN811	1-694-619-11	TERMINAL BOARD (4P) (SPEAKER OUT C/D CHANNELE)			
		< JACK >			
CNJ807	1-770-068-71	JACK, PIN 4P (INPUT MONO A/B C/D)			
		< CONNECTOR >			
* CNP805	1-764-333-11	PLUG, CONNECTOR 10P			
* CNP806	1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P			
CNP808	1-784-917-11	CONNECTOR, BOARD TO BOARD 9P			
CNP809	1-784-917-11	CONNECTOR, BOARD TO BOARD 9P			
		< DIODE >			
D103	8-719-820-05	DIODE 1SS181-TE85R (AEP,UK,E)			
D104	8-719-820-05	DIODE 1SS181-TE85R			
D105	8-719-158-49	DIODE UDZ-TE-17-12B (AEP,UK,E)			
D106	8-719-158-49	DIODE UDZ-TE-17-12B			
D107	8-719-800-76	DIODE 1SS226			
D203	8-719-820-05	DIODE 1SS181-TE85R (AEP,UK,E)			
D204	8-719-820-05	DIODE 1SS181-TE85R			
D205	8-719-158-49	DIODE UDZ-TE-17-12B (AEP,UK,E)			
D206	8-719-158-49	DIODE UDZ-TE-17-12B			
D207	8-719-800-76	DIODE 1SS226			
D303	8-719-820-05	DIODE 1SS181-TE85R			
D304	8-719-820-05	DIODE 1SS181-TE85R			
D305	8-719-158-49	DIODE UDZ-TE-17-12B			
D306	8-719-158-49	DIODE UDZ-TE-17-12B			
D307	8-719-800-76	DIODE 1SS226			
D403	8-719-820-05	DIODE 1SS181-TE85R			
D404	8-719-820-05	DIODE 1SS181-TE85R			
D405	8-719-158-49	DIODE UDZ-TE-17-12B			
D406	8-719-158-49	DIODE UDZ-TE-17-12B			
D407	8-719-800-76	DIODE 1SS226			
D851	8-719-801-78	DIODE 1SS184-TE85L			
D852	8-719-158-49	DIODE UDZ-TE-17-12B			
D853	8-719-105-92	DIODE RD5.6M-T1B3			
D854	8-719-987-67	DIODE 11EFS2-TB5			
D855	8-719-987-67	DIODE 11EFS2-TB5			
D856	8-719-210-21	DIODE 11EQS04-TA1B			
D857	8-719-210-21	DIODE 11EQS04-TA1B			
D858	8-719-210-21	DIODE 11EQS04-TA1B			
D859	8-719-210-21	DIODE 11EQS04-TA1B			
D860	8-719-987-67	DIODE 11EFS2-TB5			
D861	8-719-987-67	DIODE 11EFS2-TB5			
D862	8-719-200-82	DIODE 11ES2-TB5			
D863	8-719-200-82	DIODE 11ES2-TB5			
D864	8-719-200-82	DIODE 11ES2-TB5			
D865	8-719-200-82	DIODE 11ES2-TB5			
		< IC >			
IC801	8-759-711-82	IC NJM4580E(T1)			
IC802	8-759-711-82	IC NJM4580E(T1)			
IC806	8-759-711-82	IC NJM4580E(T1)			
IC807	8-759-711-82	IC NJM4580E(T1)			
IC808	8-759-711-82	IC NJM4580E(T1)			
IC812	8-759-711-82	IC NJM4580E(T1)			
IC851	8-759-711-82	IC NJM4580E(T1)			

Ref. No.	Part No.	Description		Remark
		< TRANSISTOR >		
Q101	8-729-107-43	TRANSISTOR	2SC3624-T1L1718	
Q102	8-729-203-48	TRANSISTOR	2SC3327-A	
Q103	8-729-203-48	TRANSISTOR	2SC3327-A	
Q104	8-729-184-53	TRANSISTOR	2SC1841-FA	
Q105	8-729-140-82	TRANSISTOR	2SA988-FA	
Q106	8-729-184-53	TRANSISTOR	2SC1841-FA	
Q107	8-729-140-82	TRANSISTOR	2SA988-FA	
Q108	8-729-209-18	TRANSISTOR	2SA1360-Y	
Q109	8-729-203-45	TRANSISTOR	2SC3423-Y	
Q110	8-729-030-82	TRANSISTOR	2SD1509	
Q111	8-729-049-52	TRANSISTOR	FS70SMJ-2	
Q112	8-729-049-53	TRANSISTOR	FX50SMJ-2	
Q113	8-729-216-21	TRANSISTOR	2SA1162-Y (AEP,UK,E)	
Q114	8-729-216-21	TRANSISTOR	2SA1162-Y	
Q115	8-729-230-49	TRANSISTOR	2SC2712-Y (AEP,UK,E)	
Q116	8-729-230-49	TRANSISTOR	2SC2712-Y	
Q201	8-729-107-43	TRANSISTOR	2SC3624-T1L1718	
Q202	8-729-203-48	TRANSISTOR	2SC3327-A	
Q203	8-729-203-48	TRANSISTOR	2SC3327-A	
Q204	8-729-184-53	TRANSISTOR	2SC1841-FA	
Q205	8-729-140-82	TRANSISTOR	2SA988-FA	
Q206	8-729-184-53	TRANSISTOR	2SC1841-FA	
Q207	8-729-140-82	TRANSISTOR	2SA988-FA	
Q208	8-729-209-18	TRANSISTOR	2SA1360-Y	
Q209	8-729-203-45	TRANSISTOR	2SC3423-Y	
Q210	8-729-030-82	TRANSISTOR	2SD1509	
Q211	8-729-049-52	TRANSISTOR	FS70SMJ-2	
Q212	8-729-049-53	TRANSISTOR	FX50SMJ-2	
Q213	8-729-216-21	TRANSISTOR	2SA1162-Y (AEP,UK,E)	
Q214	8-729-216-21	TRANSISTOR	2SA1162-Y	
Q215	8-729-230-49	TRANSISTOR	2SC2712-Y (AEP,UK,E)	
Q216	8-729-230-49	TRANSISTOR	2SC2712-Y	
Q301	8-729-107-43	TRANSISTOR	2SC3624-T1L1718	
Q302	8-729-203-48	TRANSISTOR	2SC3327-A	
Q303	8-729-203-48	TRANSISTOR	2SC3327-A	
Q304	8-729-184-53	TRANSISTOR	2SC1841-FA	
Q305	8-729-140-82	TRANSISTOR	2SA988-FA	
Q306	8-729-184-53	TRANSISTOR	2SC1841-FA	
Q307	8-729-140-82	TRANSISTOR	2SA988-FA	
Q308	8-729-209-18	TRANSISTOR	2SA1360-Y	
Q309	8-729-203-45	TRANSISTOR	2SC3423-Y	
Q310	8-729-030-82	TRANSISTOR	2SD1509	
Q311	8-729-049-52	TRANSISTOR	FS70SMJ-2	
Q312	8-729-049-53	TRANSISTOR	FX50SMJ-2	
Q313	8-729-216-21	TRANSISTOR	2SA1162-Y	
Q314	8-729-216-21	TRANSISTOR	2SA1162-Y	
Q315	8-729-230-49	TRANSISTOR	2SC2712-Y	
Q316	8-729-230-49	TRANSISTOR	2SC2712-Y	
Q401	8-729-107-43	TRANSISTOR	2SC3624-T1L1718	
Q402	8-729-203-48	TRANSISTOR	2SC3327-A	
Q403	8-729-203-48	TRANSISTOR	2SC3327-A	
Q404	8-729-184-53	TRANSISTOR	2SC1841-FA	
Q405	8-729-140-82	TRANSISTOR	2SA988-FA	
Q406	8-729-184-53	TRANSISTOR	2SC1841-FA	
Q407	8-729-140-82	TRANSISTOR	2SA988-FA	
Q408	8-729-209-18	TRANSISTOR	2SA1360-Y	
Q409	8-729-203-45	TRANSISTOR	2SC3423-Y	
Q410	8-729-030-82	TRANSISTOR	2SD1509	
Q411	8-729-049-52	TRANSISTOR	FS70SMJ-2	
Q412	8-729-049-53	TRANSISTOR	FX50SMJ-2	
Q413	8-729-216-21	TRANSISTOR	2SA1162-Y	
Q414	8-729-216-21	TRANSISTOR	2SA1162-Y	
Q415	8-729-230-49	TRANSISTOR	2SC2712-Y	
Q416	8-729-230-49	TRANSISTOR	2SC2712-Y	
Q701	8-729-271-32	TRANSISTOR	2SC2713L-TE85R	
Q851	8-729-207-89	TRANSISTOR	2SA1358-Y	
Q852	8-729-230-49	TRANSISTOR	2SC2712-Y	
Q853	8-729-141-83	TRANSISTOR	2SB1375	
Q854	8-729-230-49	TRANSISTOR	2SC2712-Y	
Q855	8-729-205-88	TRANSISTOR	2SC3074-Y(TE16L)	
Q856	8-729-205-88	TRANSISTOR	2SC3074-Y(TE16L)	
Q857	8-729-230-49	TRANSISTOR	2SC2712-Y	
Q858	8-729-216-21	TRANSISTOR	2SA1162-Y	
Q859	8-729-230-49	TRANSISTOR	2SC2712-Y	
Q860	8-729-230-49	TRANSISTOR	2SC2712-Y	
Q861	8-729-216-21	TRANSISTOR	2SA1162-Y	
		< RESISTOR >		
R101	1-208-518-61	RES-CHIP	22K 2% 1/10W	
R102	1-208-518-61	RES-CHIP	22K 2% 1/10W	
R103	1-208-291-11	RES-CHIP	4.7M 5% 1/10W	
R104	1-208-518-61	RES-CHIP	22K 2% 1/10W	
R105	1-208-518-61	RES-CHIP	22K 2% 1/10W	
R106	1-216-631-11	METAL CHIP	150 0.5% 1/10W	
R107	1-208-453-61	RES-CHIP	4.7K 2% 1/10W	
R108	1-208-449-61	RES-CHIP	3.3K 2% 1/10W	
R109	1-208-453-61	RES-CHIP	4.7K 2% 1/10W	
R110	1-208-449-61	RES-CHIP	3.3K 2% 1/10W	
R111	1-216-647-11	METAL CHIP	680 0.5% 1/10W	
R112	1-208-518-61	RES-CHIP	22K 2% 1/10W	
R113	1-216-671-11	METAL CHIP	6.8K 0.5% 1/10W	
R114	1-208-510-61	RES-CHIP	10K 2% 1/8W	
R115	1-208-510-61	RES-CHIP	10K 2% 1/8W	
R116	1-208-462-61	RES-CHIP	10K 2% 1/10W	
R117	1-208-449-61	RES-CHIP	3.3K 2% 1/10W	
R118	1-208-437-61	RES-CHIP	1K 2% 1/10W	
R119	1-208-437-61	RES-CHIP	1K 2% 1/10W	
R120	1-208-510-61	RES-CHIP	10K 2% 1/8W	
R121	1-208-510-61	RES-CHIP	10K 2% 1/8W	
R124	1-208-365-61	RES-CHIP	100 2% 1/10W	
R125	1-208-365-61	RES-CHIP	100 2% 1/10W	
R126	1-216-052-00	METAL CHIP	1.3K 5% 1/10W	
R127	1-208-437-61	RES-CHIP	1K 2% 1/10W	
R128	1-249-955-11	CARBON	22K 5% 1/4W	
R129	1-249-955-11	CARBON	22K 5% 1/4W	
R130	1-216-699-11	METAL CHIP	100K 0.5% 1/10W	
R131	1-216-699-11	METAL CHIP	100K 0.5% 1/10W	
R132	1-216-615-11	METAL CHIP	33 0.5% 1/10W	
R133	1-216-615-11	METAL CHIP	33 0.5% 1/10W	
R134	1-208-437-61	RES-CHIP	1K 2% 1/10W (AEP,UK,E)	
R135	1-208-437-61	RES-CHIP	1K 2% 1/10W	
R136	1-208-437-61	RES-CHIP	1K 2% 1/10W (AEP,UK,E)	

AMP

Ref. No.	Part No.	Description			Remark
R137	1-208-437-61	RES-CHIP	1K	2%	1/10W
R138	1-242-799-11	RES, METAL BOARD 60M/60M			5W F (AEP,UK,E)
R140	1-242-799-11	RES, METAL BOARD 60M/60M			5W F
R143	1-208-789-11	RES-CHIP	2K	2%	1/10W
R145	1-208-789-11	RES-CHIP	2K	2%	1/10W
R146	1-208-462-61	RES-CHIP	10K	2%	1/10W (AEP,UK,E)
R147	1-208-462-61	RES-CHIP	10K	2%	1/10W (AEP,UK,E)
R148	1-208-462-61	RES-CHIP	10K	2%	1/10W
R149	1-208-462-61	RES-CHIP	10K	2%	1/10W
R150	1-208-462-61	RES-CHIP	10K	2%	1/10W (AEP,UK,E)
R151	1-208-462-61	RES-CHIP	10K	2%	1/10W
R152	1-208-550-61	RES-CHIP	470K	2%	1/10W
R153	1-215-860-11	METAL OXIDE	33	5%	1W
R154	1-249-935-11	CARBON	3.3K	5%	1/4W
R155	1-249-943-11	CARBON	6.8K	5%	1/4W
R156	1-249-947-11	CARBON	10K	5%	1/4W
R157	1-249-947-11	CARBON	10K	5%	1/4W
R158	1-215-860-11	METAL OXIDE	33	5%	1W
R159	1-215-860-11	METAL OXIDE	33	5%	1W
R160	1-208-462-61	RES-CHIP	10K	2%	1/10W (US,CND)
R161	1-216-619-11	METAL CHIP	47	0.5%	1/10W
R201	1-208-518-61	RES-CHIP	22K	2%	1/10W
R202	1-208-518-61	RES-CHIP	22K	2%	1/10W
R203	1-208-291-11	RES-CHIP	4.7M	5%	1/10W
R204	1-208-518-61	RES-CHIP	22K	2%	1/10W
R205	1-208-518-61	RES-CHIP	22K	2%	1/10W
R206	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R207	1-208-453-61	RES-CHIP	4.7K	2%	1/10W
R208	1-208-449-61	RES-CHIP	3.3K	2%	1/10W
R209	1-208-453-61	RES-CHIP	4.7K	2%	1/10W
R210	1-208-449-61	RES-CHIP	3.3K	2%	1/10W
R211	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R212	1-208-518-61	RES-CHIP	22K	2%	1/10W
R213	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R214	1-208-510-61	RES-CHIP	10K	2%	1/8W
R215	1-208-510-61	RES-CHIP	10K	2%	1/8W
R216	1-208-462-61	RES-CHIP	10K	2%	1/10W
R217	1-208-449-61	RES-CHIP	3.3K	2%	1/10W
R218	1-208-437-61	RES-CHIP	1K	2%	1/10W
R219	1-208-437-61	RES-CHIP	1K	2%	1/10W
R220	1-208-510-61	RES-CHIP	10K	2%	1/8W
R221	1-208-510-61	RES-CHIP	10K	2%	1/8W
R224	1-208-365-61	RES-CHIP	100	2%	1/10W
R225	1-208-365-61	RES-CHIP	100	2%	1/10W
R226	1-216-052-00	METAL CHIP	1.3K	5%	1/10W
R227	1-208-437-61	RES-CHIP	1K	2%	1/10W
R228	1-249-955-11	CARBON	22K	5%	1/4W
R229	1-249-955-11	CARBON	22K	5%	1/4W
R230	1-216-699-11	METAL CHIP	100K	0.5%	1/10W
R231	1-216-699-11	METAL CHIP	100K	0.5%	1/10W
R232	1-216-615-11	METAL CHIP	33	0.5%	1/10W
R233	1-216-615-11	METAL CHIP	33	0.5%	1/10W
R234	1-208-437-61	RES-CHIP	1K	2%	1/10W (AEP,UK,E)

Ref. No.	Part No.	Description			Remark
R235	1-208-437-61	RES-CHIP	1K	2%	1/10W
R236	1-208-437-61	RES-CHIP	1K	2%	1/10W (AEP,UK,E)
R237	1-208-437-61	RES-CHIP	1K	2%	1/10W
R238	1-242-799-11	RES, METAL BOARD 60M/60M			5W F (AEP,UK,E)
R240	1-242-799-11	RES, METAL BOARD 60M/60M			5W F
R243	1-208-789-11	RES-CHIP	2K	2%	1/10W
R245	1-208-789-11	RES-CHIP	2K	2%	1/10W
R246	1-208-462-61	RES-CHIP	10K	2%	1/10W (AEP,UK,E)
R247	1-208-462-61	RES-CHIP	10K	2%	1/10W (AEP,UK,E)
R248	1-208-462-61	RES-CHIP	10K	2%	1/10W
R249	1-208-462-61	RES-CHIP	10K	2%	1/10W
R250	1-208-462-61	RES-CHIP	10K	2%	1/10W (AEP,UK,E)
R251	1-208-462-61	RES-CHIP	10K	2%	1/10W
R252	1-208-550-61	RES-CHIP	470K	2%	1/10W
R253	1-215-860-11	METAL OXIDE	33	5%	1W
R254	1-249-568-11	CARBON	4.7K	5%	1/4W
R255	1-249-943-11	CARBON	6.8K	5%	1/4W
R256	1-249-947-11	CARBON	10K	5%	1/4W
R257	1-249-947-11	CARBON	10K	5%	1/4W
R258	1-215-860-11	METAL OXIDE	33	5%	1W
R259	1-215-860-11	METAL OXIDE	33	5%	1W
R260	1-208-518-61	RES-CHIP	22K	2%	1/10W
R261	1-216-619-11	METAL CHIP	47	0.5%	1/10W
R301	1-208-518-61	RES-CHIP	22K	2%	1/10W
R302	1-208-518-61	RES-CHIP	22K	2%	1/10W
R303	1-208-291-11	RES-CHIP	4.7M	5%	1/10W
R304	1-208-518-61	RES-CHIP	22K	2%	1/10W
R305	1-208-518-61	RES-CHIP	22K	2%	1/10W
R306	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R307	1-208-453-61	RES-CHIP	4.7K	2%	1/10W
R308	1-208-449-61	RES-CHIP	3.3K	2%	1/10W
R309	1-208-453-61	RES-CHIP	4.7K	2%	1/10W
R310	1-208-449-61	RES-CHIP	3.3K	2%	1/10W
R311	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R312	1-208-518-61	RES-CHIP	22K	2%	1/10W
R313	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R314	1-208-510-61	RES-CHIP	10K	2%	1/8W
R315	1-208-510-61	RES-CHIP	10K	2%	1/8W
R316	1-208-462-61	RES-CHIP	10K	2%	1/10W
R317	1-208-449-61	RES-CHIP	3.3K	2%	1/10W
R318	1-208-437-61	RES-CHIP	1K	2%	1/10W
R319	1-208-437-61	RES-CHIP	1K	2%	1/10W
R320	1-208-510-61	RES-CHIP	10K	2%	1/8W
R321	1-208-510-61	RES-CHIP	10K	2%	1/8W
R324	1-208-365-61	RES-CHIP	100	2%	1/10W
R325	1-208-365-61	RES-CHIP	100	2%	1/10W
R326	1-216-052-00	METAL CHIP	1.3K	5%	1/10W
R327	1-208-437-61	RES-CHIP	1K	2%	1/10W
R328	1-249-955-11	CARBON	22K	5%	1/4W
R329	1-249-955-11	CARBON	22K	5%	1/4W
R330	1-216-699-11	METAL CHIP	100K	0.5%	1/10W
R331	1-216-699-11	METAL CHIP	100K	0.5%	1/10W
R332	1-216-615-11	METAL CHIP	33	0.5%	1/10W

Ref. No.	Part No.	Description			Remark
R333	1-216-615-11	METAL CHIP	33	0.5%	1/10W
R334	1-208-437-61	RES-CHIP	1K	2%	1/10W
R335	1-208-437-61	RES-CHIP	1K	2%	1/10W
R336	1-208-437-61	RES-CHIP	1K	2%	1/10W
R337	1-208-437-61	RES-CHIP	1K	2%	1/10W
R338	1-242-799-11	RES, METAL BOARD 60M/60M			5W F
R340	1-242-799-11	RES, METAL BOARD 60M/60M			5W F
R343	1-208-789-11	RES-CHIP	2K	2%	1/10W
R345	1-208-789-11	RES-CHIP	2K	2%	1/10W
R346	1-208-462-61	RES-CHIP	10K	2%	1/10W
R347	1-208-462-61	RES-CHIP	10K	2%	1/10W
R348	1-208-462-61	RES-CHIP	10K	2%	1/10W
R349	1-208-462-61	RES-CHIP	10K	2%	1/10W
R350	1-208-462-61	RES-CHIP	10K	2%	1/10W
R351	1-208-462-61	RES-CHIP	10K	2%	1/10W
R352	1-208-550-61	RES-CHIP	470K	2%	1/10W
R353	1-215-860-11	METAL OXIDE	33	5%	1W
R354	1-249-935-11	CARBON	3.3K	5%	1/4W
R355	1-249-943-11	CARBON	6.8K	5%	1/4W
R356	1-249-947-11	CARBON	10K	5%	1/4W
R357	1-249-947-11	CARBON	10K	5%	1/4W
R358	1-215-860-11	METAL OXIDE	33	5%	1W
R359	1-215-860-11	METAL OXIDE	33	5%	1W
R360	1-208-462-61	RES-CHIP	10K	2%	1/10W (US,CND)
R361	1-216-619-11	METAL CHIP	47	0.5%	1/10W
R401	1-208-518-61	RES-CHIP	22K	2%	1/10W
R402	1-208-518-61	RES-CHIP	22K	2%	1/10W
R403	1-208-291-11	RES-CHIP	4.7M	5%	1/10W
R404	1-208-518-61	RES-CHIP	22K	2%	1/10W
R405	1-208-518-61	RES-CHIP	22K	2%	1/10W
R406	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R407	1-208-453-61	RES-CHIP	4.7K	2%	1/10W
R408	1-208-449-61	RES-CHIP	3.3K	2%	1/10W
R409	1-208-453-61	RES-CHIP	4.7K	2%	1/10W
R410	1-208-449-61	RES-CHIP	3.3K	2%	1/10W
R411	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R412	1-208-518-61	RES-CHIP	22K	2%	1/10W
R413	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R414	1-208-510-61	RES-CHIP	10K	2%	1/8W
R415	1-208-510-61	RES-CHIP	10K	2%	1/8W
R416	1-208-462-61	RES-CHIP	10K	2%	1/10W
R417	1-208-449-61	RES-CHIP	3.3K	2%	1/10W
R418	1-208-437-61	RES-CHIP	1K	2%	1/10W
R419	1-208-437-61	RES-CHIP	1K	2%	1/10W
R420	1-208-510-61	RES-CHIP	10K	2%	1/8W
R421	1-208-510-61	RES-CHIP	10K	2%	1/8W
R424	1-208-365-61	RES-CHIP	100	2%	1/10W
R425	1-208-365-61	RES-CHIP	100	2%	1/10W
R426	1-216-052-00	METAL CHIP	1.3K	5%	1/10W
R427	1-208-437-61	RES-CHIP	1K	2%	1/10W
R428	1-249-955-11	CARBON	22K	5%	1/4W
R429	1-249-955-11	CARBON	22K	5%	1/4W
R430	1-216-699-11	METAL CHIP	100K	0.5%	1/10W
R431	1-216-699-11	METAL CHIP	100K	0.5%	1/10W
R432	1-216-615-11	METAL CHIP	33	0.5%	1/10W
R433	1-216-615-11	METAL CHIP	33	0.5%	1/10W
R434	1-208-437-61	RES-CHIP	1K	2%	1/10W

Ref. No.	Part No.	Description			Remark
R435	1-208-437-61	RES-CHIP	1K	2%	1/10W
R436	1-208-437-61	RES-CHIP	1K	2%	1/10W
R437	1-208-437-61	RES-CHIP	1K	2%	1/10W
R438	1-242-799-11	RES, METAL BOARD 60M/60M			5W F
R440	1-242-799-11	RES, METAL BOARD 60M/60M			5W F
R443	1-208-789-11	RES-CHIP	2K	2%	1/10W
R445	1-208-789-11	RES-CHIP	2K	2%	1/10W
R446	1-208-462-61	RES-CHIP	10K	2%	1/10W
R447	1-208-462-61	RES-CHIP	10K	2%	1/10W
R448	1-208-462-61	RES-CHIP	10K	2%	1/10W
R449	1-208-462-61	RES-CHIP	10K	2%	1/10W
R450	1-208-462-61	RES-CHIP	10K	2%	1/10W
R451	1-208-462-61	RES-CHIP	10K	2%	1/10W
R452	1-208-550-61	RES-CHIP	470K	2%	1/10W
R453	1-215-860-11	METAL OXIDE	33	5%	1W
R454	1-249-568-11	CARBON	4.7K	5%	1/4W
R455	1-249-943-11	CARBON	6.8K	5%	1/4W
R456	1-249-947-11	CARBON	10K	5%	1/4W
R457	1-249-947-11	CARBON	10K	5%	1/4W
R458	1-215-860-11	METAL OXIDE	33	5%	1W
R459	1-215-860-11	METAL OXIDE	33	5%	1W
R460	1-208-518-61	RES-CHIP	22K	2%	1/10W
R461	1-216-619-11	METAL CHIP	47	0.5%	1/10W
R702	1-208-437-61	RES-CHIP	1K	2%	1/10W
R703	1-208-396-61	RES-CHIP	20	2%	1/8W
R704	1-208-396-61	RES-CHIP	20	2%	1/8W
R851	1-216-210-00	RES-CHIP	3.3K	2%	1/8W
R852	1-208-782-11	RES-CHIP	1K	2%	1/8W
R853	1-216-210-00	RES-CHIP	3.3K	2%	1/8W
R854	1-208-782-11	RES-CHIP	1K	2%	1/8W
R855	1-208-437-61	RES-CHIP	1K	2%	1/10W
R856	1-208-462-61	RES-CHIP	10K	2%	1/10W
R857	1-208-441-61	RES-CHIP	1.5K	2%	1/10W
R858	1-208-453-61	RES-CHIP	4.7K	2%	1/10W
R859	1-208-462-61	RES-CHIP	10K	2%	1/10W
R860	1-208-539-11	RES-CHIP	160K	2%	1/10W
R861	1-208-539-11	RES-CHIP	160K	2%	1/10W
R862	1-208-774-11	RES-CHIP	470	2%	1/10W
R863	1-208-449-61	RES-CHIP	3.3K	2%	1/10W
R864	1-208-526-61	RES-CHIP	47K	2%	1/10W
R865	1-208-518-61	RES-CHIP	22K	2%	1/10W
R866	1-216-190-00	RES-CHIP	470	2%	1/8W
R867	1-208-782-11	RES-CHIP	1K	2%	1/8W
R868	1-208-782-11	RES-CHIP	1K	2%	1/8W
R870	1-208-462-61	RES-CHIP	10K	2%	1/10W
R871	1-208-462-61	RES-CHIP	10K	2%	1/10W
R872	1-208-462-61	RES-CHIP	10K	2%	1/10W
R873	1-208-462-61	RES-CHIP	10K	2%	1/10W
R874	1-216-121-00	RES-CHIP	1M	5%	1/10W
R875	1-208-462-61	RES-CHIP	10K	2%	1/10W
R876	1-208-462-61	RES-CHIP	10K	2%	1/10W
R877	1-216-121-00	RES-CHIP	1M	5%	1/10W
R878	1-216-603-11	METAL CHIP	10	0.5%	1/10W
R879	1-216-603-11	METAL CHIP	10	0.5%	1/10W
R880	1-216-603-11	METAL CHIP	10	0.5%	1/10W
R881	1-216-603-11	METAL CHIP	10	0.5%	1/10W
R882	1-216-121-00	RES-CHIP	1M	5%	1/10W
R883	1-208-462-61	RES-CHIP	10K	2%	1/10W

AMP FILTER

Ref. No.	Part No.	Description			Remark
R884	1-208-462-61	RES-CHIP	10K	2%	1/10W
R885	1-208-453-61	RES-CHIP	4.7K	2%	1/10W
R886	1-216-665-11	METAL CHIP	3.9K	0.5%	1/10W
R887	1-216-665-11	METAL CHIP	3.9K	0.5%	1/10W
		< RELAY >			
RY801	1-755-353-11	RELAY			
RY802	1-755-353-11	RELAY			
		< SWITCH >			
S805	1-692-721-11	SWITCH, SLIDE (DIRECT/ON/OFF)			
S806	1-692-721-11	SWITCH, SLIDE (DIRECT/ON/OFF)			
S851	1-771-802-11	SWITCH (TEST TONE)			
		< TRANSFORMER >			
T851	1-435-149-11	TRANSFORMER, DC-DC CONVERTER			
		< THERMISTOR >			
TH851	1-809-664-51	THERMISTOR, POSITIVE			
TH852	1-810-506-11	THERMISTOR NTH5G39B223K01			
		< VARIABLE RESISTOR >			
VR101	1-241-759-11	RES, ADJ, CERMET 220 (IDLING)			
VR201	1-241-759-11	RES, ADJ, CERMET 220 (IDLING)			
VR301	1-241-759-11	RES, ADJ, CERMET 220 (IDLING)			
VR401	1-241-759-11	RES, ADJ, CERMET 220 (IDLING)			
VR801	1-225-648-11	RES, VAR CARBON 5K/5K (LEVEL/MIN-MAX)			
VR802	1-225-648-11	RES, VAR CARBON 5K/5K (LEVEL/MIN-MAX)			
VR803	1-225-648-11	RES, VAR CARBON 5K/5K (LOW BOOST/0dB-+10dB)			
VR804	1-225-648-11	RES, VAR CARBON 5K/5K (LOW BOOST/0dB-+10dB)			
**********					
*	1-675-246-11	FILTER (4CH) BOARD **********			
		< CAPACITOR >			
C151	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C152	1-136-167-00	MYLAR	0.15UF	5.00%	50V
C153	1-136-155-00	FILM	0.015uF	5%	50V
C154	1-136-167-00	MYLAR	0.15UF	5.00%	50V
C155	1-136-155-00	FILM	0.015uF	5%	50V
C158	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C251	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C252	1-136-167-00	MYLAR	0.15UF	5.00%	50V
C253	1-136-155-00	FILM	0.015uF	5%	50V
C254	1-136-167-00	MYLAR	0.15UF	5.00%	50V
C255	1-136-155-00	FILM	0.015uF	5%	50V
C258	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C351	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C352	1-136-167-00	MYLAR	0.15UF	5.00%	50V
C353	1-136-155-00	FILM	0.015uF	5%	50V
C354	1-136-167-00	MYLAR	0.15UF	5.00%	50V
C355	1-136-155-00	FILM	0.015uF	5%	50V
C358	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C451	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C452	1-136-167-00	MYLAR	0.15UF	5.00%	50V

Ref. No.	Part No.	Description			Remark
C453	1-136-155-00	FILM	0.015uF	5%	50V
C454	1-136-167-00	MYLAR	0.15UF	5.00%	50V
C455	1-136-155-00	FILM	0.015uF	5%	50V
C458	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C755	1-164-001-11	CERAMIC CHIP	0.1uF	10%	25V
C756	1-164-001-11	CERAMIC CHIP	0.1uF	10%	25V
C757	1-164-001-11	CERAMIC CHIP	0.1uF	10%	25V
C758	1-164-001-11	CERAMIC CHIP	0.1uF	10%	25V
		< JACK >			
CNJ808	1-784-916-11	CONNECTOR, BOARD TO BOARD 9P			
CNJ809	1-784-916-11	CONNECTOR, BOARD TO BOARD 9P			
		< IC >			
IC803	8-759-711-82	IC NJM4580E(T1)			
IC804	8-759-711-82	IC NJM4580E(T1)			
IC805	8-759-711-82	IC NJM4580E(T1)			
IC809	8-759-711-82	IC NJM4580E(T1)			
IC810	8-759-711-82	IC NJM4580E(T1)			
IC811	8-759-711-82	IC NJM4580E(T1)			
		< RESISTOR >			
R181	1-208-462-61	RES-CHIP	10K	2%	1/10W
R182	1-208-518-61	RES-CHIP	22K	2%	1/10W
R183	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R184	1-208-462-61	RES-CHIP	10K	2%	1/10W
R185	1-208-462-61	RES-CHIP	10K	2%	1/10W
R186	1-216-057-61	RES-CHIP	2.2K	5%	1/10W
R187	1-216-057-61	RES-CHIP	2.2K	5%	1/10W
R188	1-208-365-61	RES-CHIP	100	2%	1/10W
R281	1-208-462-61	RES-CHIP	10K	2%	1/10W
R282	1-208-518-61	RES-CHIP	22K	2%	1/10W
R283	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R284	1-208-462-61	RES-CHIP	10K	2%	1/10W
R285	1-208-462-61	RES-CHIP	10K	2%	1/10W
R286	1-216-057-61	RES-CHIP	2.2K	5%	1/10W
R287	1-216-057-61	RES-CHIP	2.2K	5%	1/10W
R288	1-208-365-61	RES-CHIP	100	2%	1/10W
R381	1-208-462-61	RES-CHIP	10K	2%	1/10W
R382	1-208-518-61	RES-CHIP	22K	2%	1/10W
R383	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R384	1-208-462-61	RES-CHIP	10K	2%	1/10W
R385	1-208-462-61	RES-CHIP	10K	2%	1/10W
R386	1-216-057-61	RES-CHIP	2.2K	5%	1/10W
R387	1-216-057-61	RES-CHIP	2.2K	5%	1/10W
R388	1-208-365-61	RES-CHIP	100	2%	1/10W
R481	1-208-462-61	RES-CHIP	10K	2%	1/10W
R482	1-208-518-61	RES-CHIP	22K	2%	1/10W
R483	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R484	1-208-462-61	RES-CHIP	10K	2%	1/10W
R485	1-208-462-61	RES-CHIP	10K	2%	1/10W
R486	1-216-057-61	RES-CHIP	2.2K	5%	1/10W
R487	1-216-057-61	RES-CHIP	2.2K	5%	1/10W
R488	1-208-365-61	RES-CHIP	100	2%	1/10W
		< SWITCH >			
S801	1-571-658-11	SWITCH, SLIDE (FILTER, X1/X10)			

Ref. No.	Part No.	Description				Remark
S802	1-571-658-11	SWITCH, SLIDE (FILTER, X1/X10)				
S803	1-762-191-11	SWITCH, SLIDE (FILTER, LPF/OFF/HPF)				
S804	1-762-191-11	SWITCH, SLIDE (FILTER, LPF/OFF/HPF)				
		< VARIABLE RESISTOR >				
VR805	1-225-921-11	RES,VAR CARBON 20K/20K/20K/20K (FILTER/50Hz-400Hz)				
VR806	1-225-921-11	RES,VAR CARBON 20K/20K/20K/20K (FILTER/50Hz-400Hz)				
**********						
*	A-3317-933-A	POWER BOARD, COMPLETE **********				
		< CAPACITOR >				
C801	1-163-133-00	CERAMIC CHIP	470PF	5%	50V	
C802	1-126-006-11	ELECT	22uF	20%	16V	
C803	1-126-006-11	ELECT	22uF	20%	16V	
C804	1-163-133-00	CERAMIC CHIP	470PF	5%	50V	
C805	1-107-715-11	ELECT	22uF	20%	16V	
C806	1-126-006-11	ELECT	22uF	20%	16V	
C902	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V	
C904	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V	
C905	1-126-009-81	ELECT	100uF	20%	16V	
C906	1-126-006-11	ELECT	22uF	20%	16V	
C907	1-124-994-11	ELECT	100uF	20%	10V	
C908	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	
C909	1-107-715-11	ELECT	22uF	20%	16V	
C910	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V	
C911	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V	
C912	1-131-994-11	FILM	0.047uF	5%	100V	
C913	1-131-731-11	CAP, ELECT	2200UF/16V			
C914	1-131-731-11	CAP, ELECT	2200UF/16V			
C915	1-131-731-11	CAP, ELECT	2200UF/16V			
C916	1-131-731-11	CAP, ELECT	2200UF/16V			
C917	1-104-829-11	ELECT	220uF	20%	35V	
C918	1-104-829-11	ELECT	220uF	20%	35V	
C919	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	
C921	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V	
C922	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	
C923	1-126-009-81	ELECT	100uF	20%	16V	
C924	1-126-006-11	ELECT	22uF	20%	16V	
C925	1-124-994-11	ELECT	100uF	20%	10V	
C926	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	
C927	1-107-715-11	ELECT	22uF	20%	16V	
C928	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V	
C929	1-131-731-11	CAP, ELECT	2200UF/16V			
C930	1-131-731-11	CAP, ELECT	2200UF/16V			
C931	1-131-731-11	CAP, ELECT	2200UF/16V			
C932	1-131-731-11	CAP, ELECT	2200UF/16V			
C933	1-131-994-11	FILM	0.047uF	5%	100V	
C935	1-104-829-11	ELECT	220uF	20%	35V	
C936	1-104-829-11	ELECT	220uF	20%	35V	
C937	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	
C951	1-163-037-11	CERAMIC CHIP	0.0022uF	10%	50V	
C952	1-163-037-11	CERAMIC CHIP	0.0022uF	10%	50V	
C953	1-163-037-11	CERAMIC CHIP	0.0022uF	10%	50V	
C954	1-163-037-11	CERAMIC CHIP	0.0022uF	10%	50V	

Ref. No.	Part No.	Description		Remark
		< CONNECTOR >		
CN802	1-694-620-11	TERMINAL BOARD (3P)		
		< JACK >		
CNJ801	1-793-279-11	CONNECTOR 1P (REMOTE)(+12V,GND,+12V)		
		< CONNECTOR >		
* CNP804	1-564-709-11	PIN, CONNECTOR (SMALL TYPE) 7P		
		< DIODE >		
D806	8-719-801-78	DIODE 1SS184-TE85L		
D807	8-719-801-78	DIODE 1SS184-TE85L		
D808	8-719-025-34	DIODE 02CZ6.8-TE85L		
D809	8-719-160-56	DIODE RD12FB2		
D901	8-719-025-50	DIODE 02CZ16-TE85L		
D902	8-719-043-82	DIODE 02CZ5.1Y-TE85L		
D903	8-719-160-90	DIODE RD36FB2		
D904	8-719-025-49	DIODE 02CZ15-TE85L		
D905	8-719-076-60	DIODE FCH20A15		
D906	8-719-076-61	DIODE FRH20A15		
D907	8-719-801-78	DIODE 1SS184-TE85L		
D908	8-719-801-78	DIODE 1SS184-TE85L		
D909	8-719-801-78	DIODE 1SS184-TE85L		
D910	8-719-160-90	DIODE RD36FB2		
D911	8-719-025-49	DIODE 02CZ15-TE85L		
D912	8-719-076-60	DIODE FCH20A15		
D913	8-719-076-61	DIODE FRH20A15		
		< FUSE >		
F901	1-576-256-11	FUSE (BLADE TYPE) (AUTO FUSE)(25V)		
F902	1-576-256-11	FUSE (BLADE TYPE) (AUTO FUSE)(25V)		
F903	1-576-256-11	FUSE (BLADE TYPE) (AUTO FUSE)(25V)		
F904	1-576-256-11	FUSE (BLADE TYPE) (AUTO FUSE)(25V)		
		< IC >		
IC813	8-719-156-72	PHOTO COUPLER PS2501-1-K		
IC901	8-719-156-72	PHOTO COUPLER PS2501-1-K		
IC902	8-759-144-88	IC uPC494GS-T1		
IC903	8-719-156-72	PHOTO COUPLER PS2501-1-K		
IC904	8-759-144-88	IC uPC494GS-T1		
		< COIL >		
L902	1-410-396-71	INDUCTOR	0.45uH	
L904	1-410-396-71	INDUCTOR	0.45uH	
		< PILOT LAMP >		
PL901	1-518-540-11	LAMP, PILOT		
		< TRANSISTOR >		
Q804	8-729-230-49	TRANSISTOR	2SC2712-Y	
Q805	8-729-230-49	TRANSISTOR	2SC2712-Y	
Q806	8-729-230-49	TRANSISTOR	2SC2712-Y	
Q807	8-729-230-49	TRANSISTOR	2SC2712-Y	
Q808	8-729-216-21	TRANSISTOR	2SA1162-Y	
Q809	8-729-230-49	TRANSISTOR	2SC2712-Y	
Q810	8-729-216-21	TRANSISTOR	2SA1162-Y	

POWER

Ref. No.	Part No.	Description			Remark
Q811	8-729-230-49	TRANSISTOR	2SC2712-Y		
Q812	8-729-216-21	TRANSISTOR	2SA1162-Y		
Q901	8-729-046-13	TRANSISTOR	2SB1243-QR-TV2		
Q902	8-729-216-21	TRANSISTOR	2SA1162-Y		
Q903	8-729-230-49	TRANSISTOR	2SC2712-Y		
Q904	8-729-230-49	TRANSISTOR	2SC2712-Y		
Q905	8-729-230-49	TRANSISTOR	2SC2712-Y		
Q906	8-729-230-49	TRANSISTOR	2SC2712-Y		
Q907	8-729-048-66	TRANSISTOR	2SB1238PQR-TV2		
Q908	8-729-048-66	TRANSISTOR	2SB1238PQR-TV2		
Q909	8-729-032-94	TRANSISTOR	2SD1859TV2Q		
Q910	8-729-032-94	TRANSISTOR	2SD1859TV2Q		
Q911	8-729-035-83	TRANSISTOR	MTP75N06HD (AEP,UK,E)		
Q912	8-729-035-83	TRANSISTOR	MTP75N06HD		
Q913	8-729-035-83	TRANSISTOR	MTP75N06HD		
Q914	8-729-035-83	TRANSISTOR	MTP75N06HD		
Q915	8-729-035-83	TRANSISTOR	MTP75N06HD		
Q916	8-729-035-83	TRANSISTOR	MTP75N06HD (AEP,UK,E)		
Q917	8-729-216-21	TRANSISTOR	2SA1162-Y		
Q918	8-729-230-49	TRANSISTOR	2SC2712-Y		
Q919	8-729-230-49	TRANSISTOR	2SC2712-Y		
Q920	8-729-048-66	TRANSISTOR	2SB1238PQR-TV2		
Q921	8-729-048-66	TRANSISTOR	2SB1238PQR-TV2		
Q922	8-729-032-94	TRANSISTOR	2SD1859TV2Q		
Q923	8-729-032-94	TRANSISTOR	2SD1859TV2Q		
Q924	8-729-035-83	TRANSISTOR	MTP75N06HD		
Q925	8-729-035-83	TRANSISTOR	MTP75N06HD		
Q926	8-729-035-83	TRANSISTOR	MTP75N06HD		
Q927	8-729-035-83	TRANSISTOR	MTP75N06HD		
Q928	8-729-035-83	TRANSISTOR	MTP75N06HD		
Q929	8-729-035-83	TRANSISTOR	MTP75N06HD		
		< RESISTOR >			
R816	1-216-190-00	RES-CHIP	470	2%	1/8W
R817	1-216-190-00	RES-CHIP	470	2%	1/8W
R818	1-216-190-00	RES-CHIP	470	2%	1/8W
R819	1-216-190-00	RES-CHIP	470	2%	1/8W
R820	1-208-462-61	RES-CHIP	10K	2%	1/10W
R821	1-208-462-61	RES-CHIP	10K	2%	1/10W
R822	1-208-462-61	RES-CHIP	10K	2%	1/10W
R823	1-208-462-61	RES-CHIP	10K	2%	1/10W
R824	1-208-462-61	RES-CHIP	10K	2%	1/10W
R825	1-208-462-61	RES-CHIP	10K	2%	1/10W
R826	1-216-210-00	RES-CHIP	3.3K	2%	1/8W
R827	1-208-462-61	RES-CHIP	10K	2%	1/10W
R828	1-208-462-61	RES-CHIP	10K	2%	1/10W
R829	1-216-210-00	RES-CHIP	3.3K	2%	1/8W
R830	1-208-462-61	RES-CHIP	10K	2%	1/10W
R831	1-208-462-61	RES-CHIP	10K	2%	1/10W
R832	1-208-526-61	RES-CHIP	47K	2%	1/10W
R833	1-216-210-00	RES-CHIP	3.3K	2%	1/8W
R834	1-216-234-00	RES-CHIP	33K	2%	1/8W
R835	1-216-698-11	METAL CHIP	91K	0.5%	1/10W
R836	1-208-437-61	RES-CHIP	1K	2%	1/10W
R837	1-208-510-61	RES-CHIP	10K	2%	1/8W
R838	1-249-405-11	CARBON	100	5%	1/4W F
R901	1-249-947-11	CARBON	10K	5%	1/4W
R902	1-208-474-61	RES-CHIP	330	2%	1/8W

Ref. No.	Part No.	Description			Remark
R903	1-216-210-00	RES-CHIP	3.3K	2%	1/8W
R904	1-208-782-11	RES-CHIP	1K	2%	1/8W
R905	1-216-214-00	RES-CHIP	4.7K	2%	1/8W
R906	1-208-441-61	RES-CHIP	1.5K	2%	1/10W
R907	1-249-568-11	CARBON	4.7K	5%	1/4W
R908	1-216-210-00	RES-CHIP	3.3K	2%	1/8W
R909	1-208-437-61	RES-CHIP	1K	2%	1/10W
R910	1-218-760-11	RES-CHIP	220K	2%	1/10W
R911	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R912	1-208-462-61	RES-CHIP	10K	2%	1/10W
R913	1-208-462-61	RES-CHIP	10K	2%	1/10W
R914	1-208-518-61	RES-CHIP	22K	2%	1/10W
R915	1-216-677-11	METAL CHIP	12K	0.5%	1/10W
R916	1-208-453-61	RES-CHIP	4.7K	2%	1/10W
R917	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R918	1-208-437-61	RES-CHIP	1K	2%	1/10W
R919	1-208-437-61	RES-CHIP	1K	2%	1/10W
R920	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R921	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R922	1-215-865-11	METAL OXIDE	220	5%	1W
R923	1-215-865-11	METAL OXIDE	220	5%	1W
R924	1-208-437-61	RES-CHIP	1K	2%	1/10W
R925	1-208-437-61	RES-CHIP	1K	2%	1/10W
R926	1-208-397-61	RES-CHIP	22	2%	1/8W
R927	1-208-437-61	RES-CHIP	1K	2%	1/10W
R928	1-208-437-61	RES-CHIP	1K	2%	1/10W
R929	1-208-397-61	RES-CHIP	22	2%	1/8W
R930	1-260-064-11	CARBON	1	5%	1/2W (AEP,UK,E)
R931	1-260-064-11	CARBON	1	5%	1/2W
R932	1-260-064-11	CARBON	1	5%	1/2W
R933	1-260-064-11	CARBON	1	5%	1/2W
R934	1-260-064-11	CARBON	1	5%	1/2W
R935	1-260-064-11	CARBON	1	5%	1/2W (AEP,UK,E)
R936	1-208-462-61	RES-CHIP	10K	2%	1/10W
R937	1-208-462-61	RES-CHIP	10K	2%	1/10W
R938	1-208-550-61	RES-CHIP	470K	2%	1/10W
R939	1-208-462-61	RES-CHIP	10K	2%	1/10W
R940	1-208-526-61	RES-CHIP	47K	2%	1/10W
R941	1-208-441-61	RES-CHIP	1.5K	2%	1/10W
R942	1-208-437-61	RES-CHIP	1K	2%	1/10W
R943	1-208-437-61	RES-CHIP	1K	2%	1/10W
R944	1-216-699-11	METAL CHIP	100K	0.5%	1/10W
R945	1-218-760-11	RES-CHIP	220K	2%	1/10W
R946	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R947	1-208-462-61	RES-CHIP	10K	2%	1/10W
R948	1-208-462-61	RES-CHIP	10K	2%	1/10W
R949	1-208-518-61	RES-CHIP	22K	2%	1/10W
R950	1-216-677-11	METAL CHIP	12K	0.5%	1/10W
R951	1-208-453-61	RES-CHIP	4.7K	2%	1/10W
R952	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R953	1-208-437-61	RES-CHIP	1K	2%	1/10W
R954	1-208-437-61	RES-CHIP	1K	2%	1/10W
R955	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R956	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R957	1-215-865-11	METAL OXIDE	220	5%	1W
R958	1-215-865-11	METAL OXIDE	220	5%	1W

Ref. No.	Part No.	Description			Remark
R959	1-208-437-61	RES-CHIP	1K	2%	1/10W
R960	1-208-437-61	RES-CHIP	1K	2%	1/10W
R961	1-208-397-61	RES-CHIP	22	2%	1/8W
R962	1-208-437-61	RES-CHIP	1K	2%	1/10W
R963	1-208-437-61	RES-CHIP	1K	2%	1/10W
R964	1-208-397-61	RES-CHIP	22	2%	1/8W
R965	1-260-064-11	CARBON	1	5%	1/2W
R966	1-260-064-11	CARBON	1	5%	1/2W
R967	1-260-064-11	CARBON	1	5%	1/2W
R968	1-260-064-11	CARBON	1	5%	1/2W
R969	1-260-064-11	CARBON	1	5%	1/2W
R970	1-260-064-11	CARBON	1	5%	1/2W
R991			4.7		1/8W
R992			4.7		1/8W
R993			4.7		1/8W
R994			4.7		1/8W
		< SWITCH >			
S801	1-571-658-11	SWITCH, SLIDE (MODE, HI-C/HI-V)			
S802	1-692-721-11	SWITCH, SLIDE (NFB, ON/OFF)			
		< TRANSFORMER >			
T901	1-435-148-11	TRANSFORMER, DC-DC CONVERTER			
T902	1-435-148-11	TRANSFORMER, DC-DC CONVERTER			
		< THERMISTOR >			
TH901	1-810-506-11	THERMISTOR NTH5G39B223K01			
TH902	1-810-506-11	THERMISTOR NTH5G39B223K01			
TH903	1-810-506-11	THERMISTOR NTH5G39B223K01			
TH904	1-810-506-11	THERMISTOR NTH5G39B223K01			
TH905	1-810-506-11	THERMISTOR NTH5G39B223K01			

****

MISCELLANEOUS
****

FN801	1-763-107-11	MOTOR, FAN

****

HARDWARE LIST
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#1	7-685-546-19	SCREW (+BTP3X8) TYPE2 N-S
#2	7-685-548-19	SCREW (+BTP3X12) TYPE2 N-S
#3	7-685-145-19	SCREW (+P3X6) TYPE2 NON-SLIT
#4	7-685-147-11	SCREW (+P3X10) TYPE2 NON-SLIT
#5	7-685-146-19	SCREW (+P3X8) TYPE2 NON-SLIT
#6	7-685-647-79	SCREW (+BVTP3X10) TYPE2 IT-3
#7	7-685-106-11	SCREW (+P2X10) TYPE2 NON-SLIT
#8	7-685-649-79	SCREW (+BVTP3X14) TYPE2 IT-3
#9	7-685-168-11	SCREW (+P4X40) TYPE2 NON-SLIT
#10	7-685-149-11	SCREW (+P3X14) TYPE2 NON-SLIT
#11	7-685-797-01	SCREW +PTT2.6X16 (S)

3. CHANGE OF STRUCTURE

Amplifier Board Suffix-14 was structurally changed during production of this machine.

Former type : Serial number 0012441 to 0012770

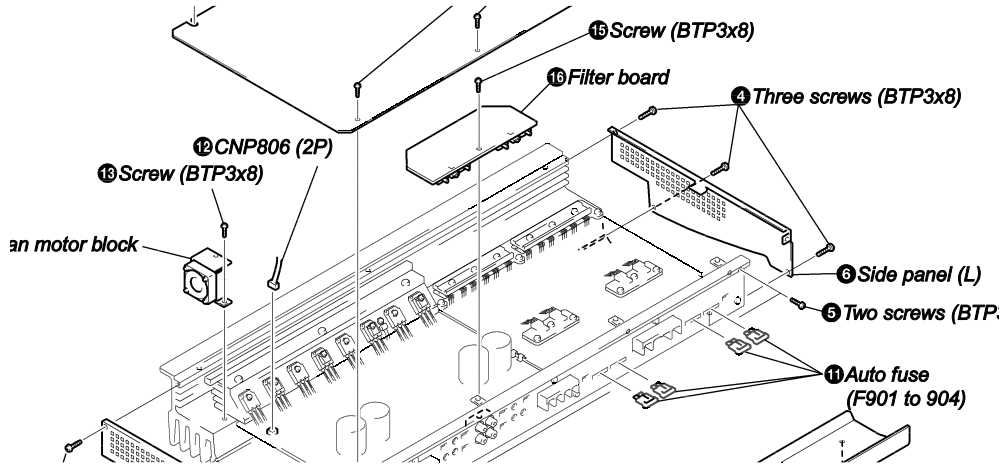
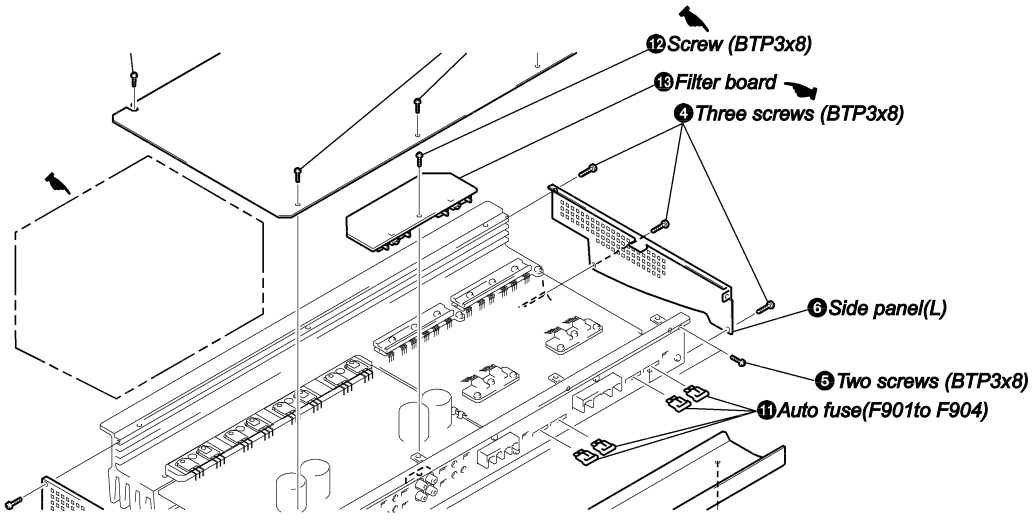
New type : Serial number 0012771 and higher

DISASSEMBLY

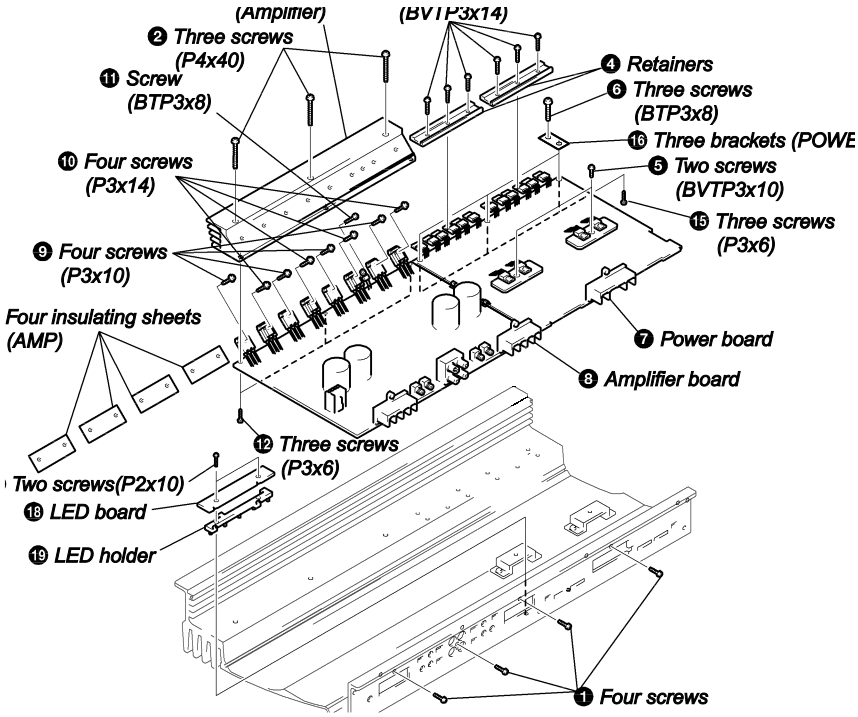
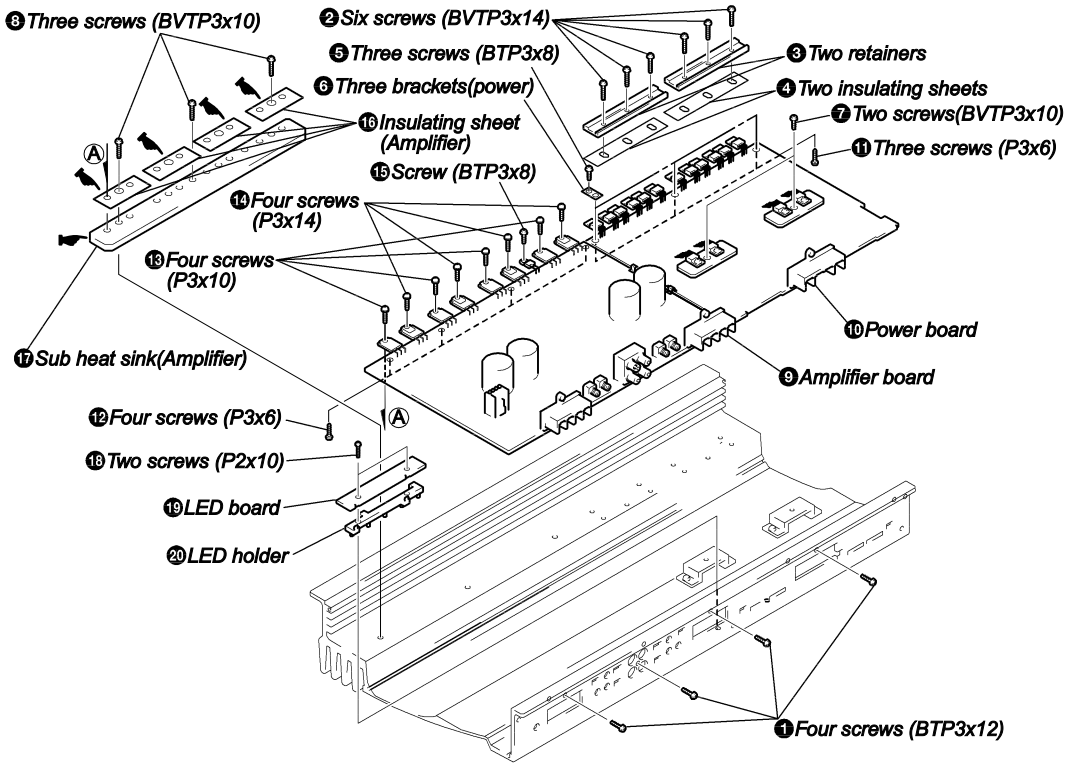
(SIDE PLATE, BOTTOM PLATE AND FILTER BOARD)

- Parts may be changed or deleted due to structural changes.
  Disassembly method may also differ due to such changes.
  Delete of parts : Bracket(fan), Fan motor
  Change of parts : Sub heat sink (amplifier), Insulating sheet(AMP)

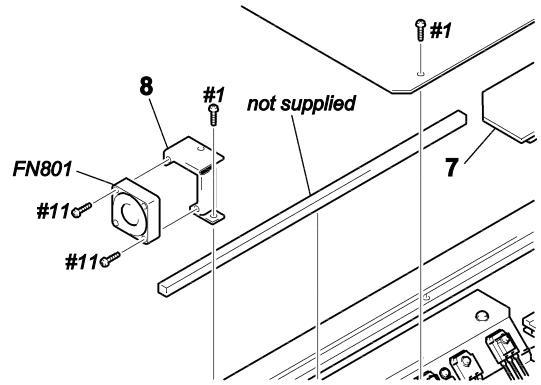
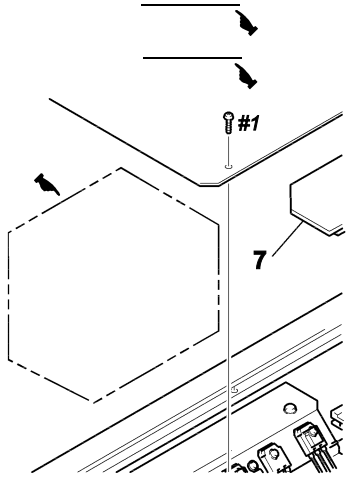
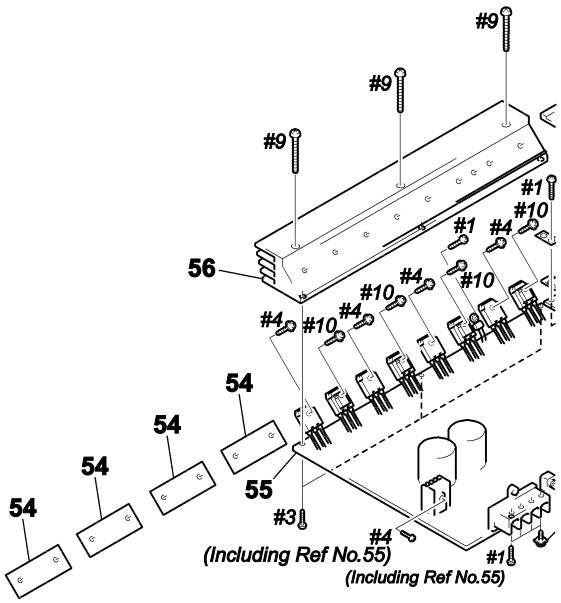
☛ **: indicates changed portion**

Page	Former Type
7	**Apply it Serial No. up to 0012770** 
	New Type
	Apply it Serial No. 0012771 and higher 

(AMPLIFIER/POWER BOARD AND LED BOARD)
☛ : indicates changed portion
page (2) : Refer to SERVICE MANUAL SUPPLEMENT-1.

Page	Former Type
7 (2)	**Apply it Serial No. up to 0012770**  (Amplifier) (BVTP3x14) ❷ Three screws (P4x40) ⓫ Screw (BTP3x8) ❹ Retainers ❻ Three screws (BTP3x8) ⓰ Three brackets (POWE ❺ Two screws (BVTP3x10) ⓯ Three screws (P3x6) ❿ Four screws (P3x14) ❾ Four screws (P3x10) Four insulating sheets (AMP) ❼ Power board ❽ Amplifier board ⓬ Three screws (P3x6) Two screws(P2x10) ⓲ LED board ⓳ LED holder ❶ Four screws
	New Type
	Apply it Serial No. 0012771 and higher  ❽Three screws (BVTP3x10) ❷Six screws (BVTP3x14) ❺Three screws (BTP3x8) ❸Two retainers ❻Three brackets(power) ❹Two insulating sheets ⓰Insulating sheet (Amplifier) ❼Two screws(BVTP3x10) ⓫Three screws (P3x6) ⓯Screw (BTP3x8) ⓮Four screws (P3x14) ⓭Four screws (P3x10) ❿Power board ⓱Sub heat sink(Amplifier) ❾Amplifier board Ⓐ ⓬Four screws (P3x6) ⓲Two screws (P2x10) ⓳LED board ⓴LED holder ❶Four screws (BTP3x12)

CORRECT OF EXPLODED VIEWS
☛ : indicates changed portion
page (3) : Refer to SERVICE MANUAL SUPPLEMENT-1.

Page	Former Type **Apply it Serial No. up to 0012770**	New Type **Apply it Serial No. 0012771 and higher**
17	Ref. No. / Part No. / Description / Remark * 8 3-039-202-01 BRACKET(FAN) FN801 1-763-107-11 MOTOR, FAN 	Ref. No. / Part No. / Description / Remark 
18 (3)	Ref. No. / Part No. / Description / Remark * 51 3-039-210-01 HEAT SINK (US,CND) * 51 3-039-210-11 HEAT SINK (AEP,UK,E) * 54 3-039-184-01 SHEET(AMP),INSULATING * 55 A-3317-930-A AMPLIFIER BOARD,COMPLETE * 56 3-039-204-01 HEAT SINK (AMPLIFIER),SUB 	Ref. No. / Part No. / Description / Remark * 51 3-039-210-21 HEAT SINK (US,CND) * 51 3-039-210-31 HEAT SINK (AEP,UK,E) * 54 3-049-654-01 SHEET(AMP),INSULATING * 55 A-3317-930-A AMPLIFIER BOARD,COMPLETE(US,CND) * 55 A-3326-258-A AMPLIFIER BOARD,COMPLETE(AEP,UK,E) * 56 3-049-653-01 HEAT SINK (AMPLIFIER),SUB * 68 3-039-181-01 EMBLEM (XPLOD)(US,CND)